REFINITIV

DELTA REPORT

10-K

TG - TREDEGAR CORP

10-K - DECEMBER 31, 2023 COMPARED TO 10-K - DECEMBER 31, 2022

The following comparison report has been automatically generated

TOTAL DELTAS	2553
CHANGES	324
DELETIONS	1075
ADDITIONS	1154

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2022 December 31, 2023

OR

¨ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from ______to ______

Commission File Number 1-10258

TREDEGAR CORPORATION

(Exact name of registrant as specified in its charter)

Virginia	**54-1497771**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
1100 Boulders Parkway,	
Richmond, Virginia	**23225**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: 804-330-1000
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock	TG	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:
None

(Title of class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No ¨

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes x No ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	o	Accelerated filer	x	Smaller reporting company	o
Non-accelerated filer	o			Emerging growth company	o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ¨

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. x

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ¨

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ¨

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ¨ No x

Aggregate market value of voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2022 June 30, 2023 (the last business day of the registrant's most recently completed second fiscal quarter): $266,141,470* $278,307,771*

Number of shares of Common Stock outstanding as of March 10, 2023 March 8, 2024: 34,016,689 34,430,769

* In determining this figure, an aggregate of 7,351,331 7,361,458 shares of Common Stock beneficially owned by Floyd D. Gottwald, Jr., John D. Gottwald, William M. Gottwald, and James T. Gottwald and the members of their immediate families has been excluded because the shares are deemed to be held by affiliates. The aggregate market value has been computed based on the closing price in the New York Stock Exchange on June 30, 2022 June 30, 2023.

Documents Incorporated By Reference

Portions of the Tredegar Corporation Proxy Statement for the 2023 2024 Annual Meeting of Shareholders (the "Proxy Statement") are incorporated by reference into Part III of this Form 10-K.

Index to Annual Report on Form 10-K
Year Ended December 31, 2022 December 31, 2023

PART I

Item 1. BUSINESS

Description of Business

Tredegar Corporation ("Tredegar") is engaged, through its subsidiaries, in the manufacture of aluminum extrusions, polyethylene ("PE") plastic films and polyester ("PET") films. Unless the context requires otherwise, all references herein to "Tredegar," "the Company," "we," "us" or "our" are to Tredegar Corporation and its consolidated subsidiaries.

The Company's reportable business segments are Aluminum Extrusions, PE Films and Flexible Packaging Films. Films (also referred to as "Terphane").

On October 30, 2020 September 1, 2023, the Company completed announced that it had entered into a definitive agreement to sell Terphane to Oben Group (the "Contingent Terphane Sale"). Completion of the sale is contingent upon the satisfaction of its personal care films business ("Personal Care Films"). The transaction excluded customary closing conditions, including the packaging film lines receipt of certain competition filing approvals by authorities in Brazil and related operations located at the Pottsville, Pennsylvania manufacturing site ("Pottsville Packaging"), which are now being reported with the Surface Protection component of PE Films. Commencing in the third quarter of 2020, all historical results for Personal Care Films have been presented as discontinued operations.

Columbia. For more information on this transaction, see Note 15 "Discontinued Operations" "***Status of Current Corporate Strategic Initiatives** - Agreement* to *the Consolidated Financial Statements included Sell Terphane*" in Item 15. "Exhibits 7. "Management's Discussion and Analysis of Financial Statement Schedules" ("Item 15") Condition and Results of Operations" of this Annual Report on Form 10-K for the year ended December 31, 2022 December 31, 2023 ("Form 10-K").

Aluminum Extrusions

Aluminum Extrusions, also referred to as Bonnell Aluminum, produces high-quality, soft and medium strength alloyed aluminum extrusions, custom fabricated and finished, for the building and construction, automotive and transportation, consumer durables goods, machinery and equipment, electrical and renewable energy, and distribution markets. Bonnell Aluminum has manufacturing facilities located in the United States ("U.S.").

Aluminum Extrusions manufactures mill (unfinished), machined, anodized and painted, and thermally improved aluminum extrusions for sale directly to fabricators and distributors. It also manufactures and sells branded product lines: Futura Transitions™ by Bonnell Aluminum (flooring trims) and TSLOTS™ by Bonnell Aluminum (structural aluminum framing systems). Aluminum Extrusions competes primarily on the basis of product quality, service and price. Sales are made predominantly in the U.S. The end-use markets for Aluminum Extrusions are cyclical and seasonal in nature.

The end-uses in each of Aluminum Extrusions' primary market segments include:

Major Markets	End-Uses
Building & construction ("B&C")- nonresidential	Commercial windows and doors, curtain walls, storefronts and entrances, automatic entry doors, walkway covers, ducts, louvers and vents, office wall panels, partitions and interior enclosures, acoustical walls and ceilings, point of purchase displays, pre-engineered structures, and flooring trims (Futura Transitions™ by Bonnell Aluminum)
Building & construction B&C - residential	Residential windows and doors, shower and tub enclosures, railing and support systems, venetian blinds, and swimming pools
Automotive & transportation	Automotive and light truck structural components, battery enclosures for electric vehicles, after-market automotive accessories, grills for heavy trucks, travel trailers and recreation vehicles
Consumer durables	Office furniture, pleasure boats, refrigerators and freezers, appliances and sporting goods
Machinery & equipment	Material handling equipment, conveyor systems, medical equipment, industrial fans and aluminum framing systems (TSLOTS™ by Bonnell Aluminum)
Distribution (metal service centers specializing in stock and release programs and custom fabrications to small manufacturers)	Various custom profiles including storm shutters, pleasure boat accessories, theater set structures and various standard profiles (including rod, bar, tube and pipe)
Electrical & renewable energy	Lighting fixtures, electronic apparatus, solar panel brackets and rigid and flexible conduits

Aluminum Extrusions' net sales (sales less freight) by market segment for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021 is shown below:

							% of Aluminum Extrusions Net Sales[1] by Market Segment			
		2022	2021	2020			**2023**	2022		2021
Building and construction:										
B&C:										
Nonresidential										
Nonresidential										
Nonresidential	Nonresidential	**53%**	50%	56%		**56%**		53%	50%	
Residential	Residential	**10%**	10%	9%	Residential		**8%**		10%	
Automotive	Automotive	**8%**	8%	8%	Automotive		**10%**		8%	
Specialty:	Specialty:									

Consumer durables	Consumer durables	**10%**	10%	10%					
Consumer durables									
Consumer durables						**8%**		10%	
Machinery & equipment	Machinery & equipment	**10%**	8%	7%	Machinery & equipment	**9%**	10%		8%
Electrical	Electrical	**4%**	6%	4%	Electrical	**6%**	4%		6%
Distribution	Distribution	**5%**	8%	6%	Distribution	**3%**	5%		8%
Total	Total	**100%**	100%	100%	Total	**100%**		100%	

1. The Company uses net sales from continuing operations as its measure of revenues from external customers at the segment level. For more business segment information, see Note 13 “Business Segments” to the Consolidated Financial Statements in Item 15.

1. The Company uses net sales as its measure of revenues from external customers at the segment level. For more business segment information, see Note 13 “Business Segments” to the Consolidated Financial Statements included in Item 15. “Exhibits and Financial Statement Schedules” of this Form 10-K (“Item 15”).

1. The Company uses net sales as its measure of revenues from external customers at the segment level. For more business segment information, see Note 13 “Business Segments” to the Consolidated Financial Statements included in Item 15. “Exhibits and Financial Statement Schedules” of this Form 10-K (“Item 15”).

In 2023, 2022 2021 and 2020, 2021, Aluminum Extrusions net sales accounted for approximately 71% 70%, 67% 71% and 63% 67% of Tredegar’s consolidated net sales, respectively.

Open Orders. Overall open orders in Aluminum Extrusions was were approximately $48.0 million, or 14 million pounds, at December 31, 2023 compared to approximately $136.0 million, or 41 million pounds, at December 31, 2022 compared to approximately $306.4 million, or 97 million pounds, at December 31, 2021, a decrease of $170.4 million $88.0 million, or approximately 56% 65%. The reduction This level is below the quarterly range of 21 to 27 million pounds in 2019 before pandemic-related disruptions that resulted in long lead times, driving a peak in open orders in 2022 compared to 2021 is primarily due to order cancellations as customers report high inventory levels. During the second half of 2022, the Company has observed order cancellations as customers report high inventory levels. Aluminum Extrusions expects the confluence of orders, cancellations and shipments to drive open orders to pre-COVID-19, normalized levels approximately 100 million pounds during the first half quarter of 2023. The outlook for demand 2022. We believe that current open orders are below pre-pandemic levels due to higher interest rates, tighter lender requirements and shipments the increase in 2023 remains uncertain given recessionary concerns. remote working, which particularly impacts the non-residential B&C end-use market. In addition, data indicates that aluminum extrusion imports increased significantly in recent years, especially during the pandemic, and some of Aluminum Extrusions’ customers may have sourced, and continue to source, aluminum extrusions from producers outside the U.S. Sales volume for Aluminum Extrusions, which the Company believes is cyclical and seasonal in nature due to its end-use markets, was 138.5 million pounds in 2023, 174.7 million pounds in 2022 and 183.4 million pounds in 2021 and 186.4 million pounds in 2020. 2021.

Raw Materials. The primary raw materials used by Aluminum Extrusions consist of aluminum ingot, aluminum scrap and various alloys, which are purchased from domestic and foreign producers in open-market purchases and under annual contracts. Refer to Item 7a. 7A. "Quantitative and Qualitative Disclosures About Market Risk” of this Form 10-K (“Item 7a” 7A”) for additional information on aluminum price trends. Aluminum Extrusions believes that it has adequate supply agreements for aluminum raw materials in 2023 despite continued supply chain cost increases related to paint, chemicals, packaging and other non-aluminum raw materials. 2024.

PE Films

PE Films produces surface protection films, polyethylene overwrap films and films for other markets. Tredegar’s Surface Protection unit produces single- and multi-layer surface protection films sold under the UltraMask®, ForceField™, ForceField PEARL®, Pearl A™, Lithyn™ and Obsidian™ brand names. These films, which are manufactured at facilities in the U.S. and China, support manufacturers of optical and other specialty substrates used in high-technology applications, most notably protecting high-value components of flat panel and flexible displays used in televisions, monitors, notebooks, smartphones, tablets, e-readers, digital signage, semiconductors and automobiles during the manufacturing and transportation process. Tredegar’s Lithyn™ Series represents a new class of tapes for wafer thinning, singulation and transportation designed to enable customers’ to overcome processing challenges and reduce costs. The Obsidian™ series of products is designed for usage in automotive applications. In 2023, 2022 2021 and 2020, 2021, PE Films accounted for approximately 11%, 15% 11% and 19% 15% of Tredegar’s consolidated net sales, respectively.

In October 2020, the Surface Protection unit assumed responsibility for Pottsville Packaging, which was previously reported within the Personal Care component of PE Films. Pottsville Packaging produces thin-gauge films as overwrap for bathroom tissue and paper towels.

Raw Materials. The primary raw materials used by PE Films are polyethylene and polypropylene resins. These raw materials are obtained from domestic and foreign suppliers at competitive prices. Refer to Item 7a 7A for additional information on resin price trends. PE Films believes that there will be an adequate supply of polyethylene and polypropylene resins in the foreseeable future.

Research and Development. Tredegar's spending for research and development ("R&D") activities in 2023, 2022 2021 and 2020 2021 was primarily related to PE Films. During the third quarter of 2023, the Company adopted a plan to close the PE Films technical center in Richmond, VA. Future R&D activities will be performed at the facility in Pottsville, PA. R&D spending by the PE Films was approximately $5.3 million $2.9 million, $5.3 million and $5.7 million in 2023, 2022 and $7.7 million in 2022, 2021, and 2020, respectively.

Customers. PE Films' products are sold primarily in the U.S. and Asia, with the top four customers, collectively, comprising 88%, 88% and 84% 87% of its net sales in 2023 and 88% in 2022 2021 and 2020, respectively. 2021. No single PE Films customer exceeds 10% of Tredegar's consolidated net sales. For additional information, see Item 1A. "Risk Factors" of this Form 10-K ("Item 1A").

Flexible Packaging Films

Flexible Packaging Films is comprised of Terphane Holdings LLC ("Terphane"). Flexible Packaging Films produces PET-based films for use in packaging applications that have specialized properties, such as heat resistance, strength, barrier protection and the ability to accept high-quality print graphics. These differentiated, high-value films are primarily manufactured in Brazil and sold in Latin America and the U.S. under the Terphane®, Sealphane® and Ecophane® brand names. Major end uses include food packaging and industrial applications. Flexible Packaging Films competes in all of its markets on the basis of product quality, service and price. In 2023, 2022 2021 and 2020, 2021, Terphane accounted for approximately 19%, 18% 19% and 18% of Tredegar's consolidated net sales, respectively.

Raw Materials. The primary raw materials used by Flexible Packaging Films to produce polyester resins are purified terephthalic acid ("PTA") and monoethylene glycol ("MEG"). Flexible Packaging Films also purchases other polyester resins directly from suppliers. These raw materials are obtained from Brazilian and foreign suppliers at competitive prices. Terphane continues to monitor cost escalations to adjust selling prices as market dynamics permit and believes that there will be an adequate supply of polyester resins, PTA and MEG in the foreseeable future. Refer to Item 7a 7A for additional information on resin price trends.

General

Intellectual Property. Tredegar considers patents, licenses and trademarks to be material to PE Films. On December 31, 2022 December 31, 2023, PE Films held 43 37 patents (including 6 U.S. patents), and 76 66 registered trademarks (including 4 U.S. registered trademarks). Flexible Packaging Films held 1 U.S. patent and 17 registered trademarks (including 4 U.S. registered trademarks). Aluminum Extrusions held no U.S. patents and 3 U.S. registered trademarks. As of December 31, 2022 December 31, 2023, these patents had remaining terms of 1.5 0.5 to 17 years.

Government Regulation. The Company's operations are subject to various local, state, federal and foreign government regulations, including environmental, privacy and anti-corruption and anti-bribery laws and regulations.

U.S. laws concerning the environment to which the Company's domestic operations are or may be subject to include the Clean Water Act, the Clean Air Act, the Resource Conservation and Recovery Act, the Occupational Safety and Health Act, the National Environmental Policy Act, the Toxic Substances Control Act, the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), regulations promulgated under these acts, and other federal, state or local laws or regulations governing environmental matters. Compliance with these laws is an important consideration because Tredegar uses hazardous materials in some of its operations, is a generator of hazardous waste, and wastewater from the Company's operations is discharged to various types of wastewater management systems. Under CERCLA and other laws, Tredegar may be subject to financial exposure for costs associated with waste management and disposal, even if the Company fully complies with applicable environmental laws.

The U.S. Environmental Protection Agency has adopted regulations under the Clean Air Act relating to emissions of carbon dioxide and other greenhouse gases ("GHG"), including mandatory reporting and permitting requirements. Several of the Company's manufacturing operations result in emissions of carbon dioxide or GHG and are subject to the current GHG regulations. The Company's compliance with environmental regulations has yet to require significant capital expenditures; however, environmental standards tend to become more stringent over time. Therefore, in order to comply with current or future environmental legislation or regulations, the Company may be subject to additional capital expenditures, operating expenses or other compliance costs, the amounts and timing of which are not presently determinable, but which could be significant, including constructing new facilities or modifying existing facilities.

Like environmental regulations, current or future privacy and anti-corruption and anti-bribery legislation or regulations may subject the Company to additional capital expenditures, operating expenses or other compliance costs, the amounts and timing of which are not presently determinable but could be significant. Any failure to comply with current or future laws and regulations, including environmental, privacy and anti-corruption and anti-bribery laws and regulations, could subject Tredegar

to substantial penalties, fines, costs and expenses. For further discussion regarding certain environmental, privacy and anti-corruption and anti-bribery laws and regulations to which the Company is subject, see Item 1A below.

Human Capital Management.

Overview

Tredegar employed approximately 2,300 1,900 people at December 31, 2022 December 31, 2023 located in the U.S., Brazil, and Asia, of which 80% 75% are located in the U.S. Approximately 18% 15% of the Company's employees are represented by labor unions located in the U.S. under various collective bargaining agreements with varying durations and expiration dates, none of which expire before 2025. All of Tredegar's Brazilian employees are represented by a national labor union. Generally, the total number of employees of Tredegar does not significantly fluctuate throughout the year. However, acquisition or divestiture activity, or changes in the level of business activity may impact employee levels.

Health and Safety

Tredegar has continuously exceeded the industry standards for safety. safety in each of its respective manufacturing sectors. The Company uses various forms of employee safety metrics to assess the health and safety performance of its Aluminum Extrusions, PE Films and Flexible Packaging operations, including employee safety data which is available on the Company's website at https://tredegar.com/ www.tredegar.com/about-tredegar/our-broader-commitments/committed-to-our-employees/.

Additionally, Aluminum Extrusions has on-site health clinics at its Carthage and Clearfield facilities. These clinics allow Aluminum Extrusions to invest in its people, provide more personal and more thorough healthcare to employees, and enhance the employer-employee relationship. The Collectively, the Carthage and Clearfield clinics serve over 500 and 300 employees, respectively. 600 employees.

Talent and Development

The Company believes its employees are its most valuable asset and are critical to the success of the Company. The Company seeks to retain employees by offering competitive wages, benefits and training opportunities. To assess and monitor employee retention and engagement, the Company surveys employees and takes actions to address areas of employee concern. The annual employee engagement survey results are presented to Tredegar's Board of Directors ("Board"). Additionally, the objectives of our executive compensation programs are to attract, motivate and retain highly qualified executive officers. To accomplish these objectives, the Company relies on a pay strategy that emphasizes performance-based compensation through annual and long-term incentives. The Company believes that this pay strategy creates a strong link between pay and performance and aligns with our business strategy of generating strong operating results and shareholder value creation while controlling fixed costs.

The Company is committed to holistically supporting our employees both at work and in their communities by:

- Strictly following all applicable health, safety and non-discrimination laws in each country;
- Promoting the highest standards for employee health and safety through innovative programs; and
- Providing opportunities for community outreach and supporting programs that enhance the lives of children and families.

Inclusion and Diversity

Tredegar strictly complies with all applicable state, local and international laws governing nondiscrimination in employment in every location where Tredegar and its businesses have facilities to ensure healthy and positive working conditions. This applies to all terms and conditions of employment, including recruiting, hiring, job assignments, promotion, termination, layoff, recall, transfer, leaves of absence, compensation and training. All applicants and employees are treated with the same high level of respect regardless of their race, creed, color, religion, sex, sexual orientation, gender identity, age, pregnancy, national origin, ethnicity, political affiliation, union membership, marital status, citizenship status, veteran status, disability or other protected category. Employees who experience or witness discriminatory behavior are encouraged to report such behavior to their supervisor, Human Resources or Tredegar's toll-free anonymous reporting hotline. Additionally, the Company spends significant resources in developing its employees. Among the five core principles of the "The Tredegar Way" that the Company uses to guide its organization, the "Leadership" principle is focused on building a team of motivated and engaged leaders at every level of the Company. Each business unit has identified specific action plans to promote the Leadership principle among its employees. Action plans include talent development, skills training, reinforcement of strong cultural values, and robust systems to ensure a safe working environment.

Information About Our Executive Officers. See Item 10. "Directors, Executive Officers and Corporate Governance" of this Form 10-K.

Available Information and Corporate Governance Documents. Tredegar's website address is www.tredegar.com. The Company makes available, through its website, its annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as soon as reasonably practicable after such documents are electronically filed

with, or furnished to, the Securities and Exchange Commission ("SEC"). Information filed electronically with the SEC can be accessed on its website at www.sec.gov. In addition, the Company's Corporate Governance Guidelines, Code of Conduct, the

charters of the Audit, Executive Compensation, Nominating and Governance Committees and Climate Change Risk Assessment and many other corporate policies are available on Tredegar's website and are available in print to any shareholder upon request by contacting Tredegar's Corporate Secretary at 1100 Boulders Parkway, Richmond, Virginia 23225. The information on or that can be accessed through the Company's website is not, and shall not be deemed to be, a part of this Form 10-K or incorporated into other filings it makes with the SEC.

Forward-looking and Cautionary Statements

Some of the information contained in this Form 10-K may constitute "forward-looking statements" within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. When the Company uses the words "believe," "estimate," "anticipate," "appear to," "expect," "project," "plan," "likely," "may" and similar expressions, it does so to identify forward-looking statements. Such statements are based on the Company's then current expectations and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those addressed in the forward-looking statements. It is possible that the Company's actual results and financial condition may differ, possibly materially, from the anticipated results and financial condition indicated in or implied by these forward-looking statements. Accordingly, you should not place undue reliance on these forward-looking statements. For risks and important factors that could cause actual results to differ from expectations, refer to the reports that Tredegar files with or furnishes the SEC from time-to-time, including the risks and important factors set forth in Item 1A. Readers are urged to review and consider carefully the disclosures Tredegar makes in the reports Tredegar files with or furnishes to the SEC. Tredegar does not undertake, and expressly disclaims any duty, to update any forward-looking statement to reflect any change in management's expectations or any change in conditions, assumptions or circumstances on which such statements are based, except as required by applicable law.

Item 1A. RISK FACTORS

There are a number of risks and uncertainties that could have a material adverse effect on the Company's businesses and its consolidated financial condition, results of operations or cash flows. The following risk factors should be considered, in addition to the other information included in this Form 10-K, when evaluating Tredegar and its businesses.

Risks Related to Tredegar's Corporate Strategic Initiatives and Indebtedness

- ***The planned divestiture of Terphane to Oben Group is subject to a number of conditions beyond our control.*** On September 1, 2023, the Company announced that it had entered into a definitive agreement to sell Terphane to Oben Group. Completion of the sale is contingent upon the satisfaction of customary closing conditions, including the receipt of certain competition filing approvals by authorities in Brazil and Colombia. On October 27, 2023, the Company filed the requisite competition forms with the Administrative Council for Economic Defense ("CADE") in Brazil, which the Company views as the primary competition authority regarding this matter. This filing followed a pre-filing phase for CADE's initial review. CADE's maximum deadline for completing its review is no later than November 18, 2024. The merger review regarding the transaction was cleared by the Colombian authority in early February 2024.

  As usual, it cannot be predicted with certainty whether all Tredegar of the required closing conditions will be satisfied, waived or if other uncertainties may arise. While the regulatory review process is ongoing and in line with the Company's expectations, regulators could impose additional requirements or obligations as conditions for their approval, which may be burdensome. If such closing conditions are not met or additional obligations are imposed, the proposed sale may not be consummated, encounter delays, or experience other issues that are not currently anticipated.

- ***The Company's failure to successfully transition to the reporting requirements for its asset-based revolving credit facility ("ABL Facility"), which matures on June 30, 2026, or an unexpected downturn in the markets could adversely impact the Company's financial position and results of operations.*** On December 27, 2023, the

Company entered into the ABL Facility, which provides the Company with $180 million senior secured asset-based revolving credit facility that will expire on June 30, 2026. The ABL Facility amended the Company's existing $200 million revolving, secured credit facility that was cash flow-based. Availability under the ABL Facility is governed by a borrowing base, determined by the application of specified advance rates against eligible assets, including a portion of trade accounts receivable, inventory, cash and cash equivalents, owned real properties, and owned machinery and equipment.

A number of factors could affect the Company's ability to successfully complete its transition from its prior cash flow-based revolving credit facility to the current asset-based facility. These factors include:

- Failure to establish processes associated with the ABL Facility's reporting requirements, which are currently on a monthly basis but could change to a weekly cadence if at any time the borrowing availability falls below 10% of the maximum aggregate principal amount. Failure to timely report could result in an Event of Default (as defined in the ABL Facility), which if not waived, would permit the lenders, at their option, to accelerate all outstanding debt under the ABL Facility. Should the lenders elect to accelerate the debt under the ABL Facility,

  a cross-default would be triggered under the Terphane Brazil Loan (as defined below in Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Form 10-K ("Item 7")).
- Because the Company is currently subject to a Cash Dominion Period (as defined in Item 7), it is required to borrow cash to fund working capital, capital expenditures, business development activity, and other general corporate purposes, which limits its financial flexibility;
- Advances on accounts receivable and inventory are subject to change based on periodic commercial finance examinations and appraisals, and the real property, machinery and equipment values included in the borrowing base are subject to change based on periodic appraisals, which could reduce borrowing availability under the ABL Facility; and
- If a Material Adverse Effect (as defined in the ABL Facility) has occurred, the Company will not be able to continue to borrow under the ABL Facility.

In addition, a significant deterioration in the Company's accounts receivable or inventory levels due to depressed economic conditions, weak consumer spending, turmoil in the credit markets or other factors, could restrict its ability to service its indebtedness or borrow additional funds.

Upon the earlier of March 31, 2025 or the date the Company receives the proceeds from the Contingent Terphane Sale (the "ABL Adjustment Date"), borrowing availability under the ABL Facility will be reduced from $180 million to $125 million. If the Contingent Terphane Sale is not completed by the ABL Adjustment Date, the Company may have to undertake alternative financing plans, subject to the limitations imposed by the ABL Facility, including limitations on its ability to:

- refinance or restructure its indebtedness;
- sell assets; and
- raise additional capital.

The Company may be unable to implement alternative financing plans on commercially reasonable terms or at all, and any such alternative financing plans might be insufficient to allow it to make principal and interest payments on its indebtedness required as a result of the ABL Adjustment Date and the reduction of borrowing availability under the ABL Facility to $125 million. The Company's ability to restructure or refinance its indebtedness will depend on, among other things, its existing financial condition, projections of business conditions, sales, Credit EBITDA, net cash flow, net leverage and the condition of the capital markets at such time. Any refinancing of the Company's indebtedness could be at higher interest rates and could require it to comply with additional covenants, which could further restrict the Company's business operations.

Noncompliance with any of the covenants of the ABL Facility could result int an Event of Default, which if not cured or waived, would permit the lenders, at their option, to accelerate all outstanding debt under the ABL Facility.

Risks Related to All Tredegar's Businesses

- ***Recent macroeconomic factors, including inflation, high interest rates, recession risks and other lagging effects of the COVID-19 pandemic, have caused downturns in key markets and created other commercial disruptions, which have and could further adversely impact our businesses.***Products sold to key end-use markets, including the B&C and consumer electronics markets, represent a significant portion of our revenue. Because these markets are tied closely to overall economic performance, macroeconomic factors have and could further cause changes to demand for our products. These factors include: (i) inflation; (ii) high interest rates; (iii) recession risks; (iv) disruptions to supply chains; (v) other interruptions of international and regional commerce; and (vi) other lagging effects of the COVID-19 pandemic. Price erosion may occur as competitors become more aggressive in pricing practices. To the extent that these factors reduce demand for our products, our business, financial position, results of operations and cash flows could be adversely impacted.
- ***Tredegar's performance is influenced by costs incurred by its operating companies, including for example, the cost of raw materials and energy.*** These costs include the cost of aluminum (the raw material on which Aluminum Extrusions primarily depends), resin (the raw material on which PE Films primarily depends), PTA and MEG (the raw materials on which Flexible Packaging Films primarily depends), natural gas (the principal fuel necessary for Aluminum Extrusions' plants to operate), electricity, diesel fuel and paint. Aluminum, resin and natural gas prices are volatile as shown in the charts in Item 7a. The Company continues to face inflationary pressures, including notable increases in costs for raw materials, labor and freight. Additionally, geopolitical tensions, including deteriorating relations between the United States and Russia resulting from the invasion of Russia into Ukraine, could result in the implementation of additional economic sanctions, tariffs, import-export restrictions and retaliatory actions that all have the potential to adversely impact the cost of raw materials and energy. 7A. The Company attempts to mitigate the effects of increased costs through price increases and contractual pass-through provisions, but there are no assurances that higher prices can effectively be passed through to customers or that Tredegar will be able to offset fully or on a timely basis the effects of higher raw material and energy costs through price increases or pass-through arrangements. costs. Further, the Company's cost control efforts may not be sufficient to offset any increases in raw material, materials, energy or other costs.

- ***Material disruptions Our failure to continue to attract, develop and retain certain key officers or employees could adversely affect our businesses.*** Our success depends upon the efforts and abilities of key personnel, many of whom are longstanding employees. The loss of any of these key personnel could deplete our institutional knowledge base and negatively affect our ability to efficiently operate our businesses. Certain roles have experienced high turnover in recent years, and we are experiencing an increasingly competitive labor market. Increased employee turnover could hinder our ability to execute our business strategy and adversely affect our business, financial condition, results of operations and cash flows.

- ***Disruptions at one of the Company's major manufacturing facilities could negatively impact financial results.*** Tredegar believes it has implemented measures to minimize the risks of disruption at its facilities. However, a disruption could occur as a result of any number of events: an equipment failure with repairs requiring long lead times, labor stoppages or shortages, cybersecurity attacks, utility disruptions, constraints on the supply or delivery of critical raw materials, and severe weather conditions, including potential flooding at the Aluminum Extrusions facility located in Carthage, TN, which is located in a 50-year flood plain. A material disruption in one of the Company's operating locations could negatively impact production and the Company's consolidated financial condition, results of operations and cash flows.
- ***A failure in the Company's information technology systems as a result of cybersecurity attacks or other causes could negatively affect Tredegar's business.*** The Company depends on information technology ("IT") to record and process customer orders, manufacture and ship products in a timely manner, secure its production processes and know-how, maintain the financial accuracy of its business records and maintain personally identifiable information of its employees. An IT system failure due to computer viruses, internal or external security breaches, cybersecurity attacks or other malicious causes could disrupt our operations and prevent us from being able to process transactions with our customers,

operate our manufacturing facilities and properly report transactions in a timely manner. Increased global IT security threats and cyber-crime pose a potential risk to the security and availability of the Company's IT systems, networks and services, including those that are managed, hosted, provided or used by third parties, as well as to the confidentiality, availability and integrity of the Company's data. Additionally, increased cybersecurity risk arises due to certain employees working remotely. To date, interruptions of the Company's IT systems have been infrequent and have not had a material impact on the Company's operations. A significant prolonged failure of or security breach of the IT systems, networks or service providers the Company relies upon, or a loss or disclosure of business or other sensitive information, or personally identifiable information, as a result of a cybersecurity incident or other cause, could result in substantial costs to the Company, damage to the Company's reputation, regulatory enforcement actions and lawsuits and could adversely affect the Company's results of operations, financial condition or cash flows.

- ***Our failure to continue to attract, develop and retain certain key officers or employees could adversely affect our businesses.*** Our success depends upon the efforts and abilities of key personnel, many of whom are longstanding employees. The loss of any of these key personnel could deplete our institutional knowledge base and negatively affect our ability to efficiently operate our businesses. Certain roles have experienced high turnover in recent years, and we are experiencing an increasingly competitive labor market. Job market dynamics have been impacted by macroeconomic conditions, the effects of the COVID-19 pandemic and the "great resignation." Increased employee turnover could hinder our ability to execute our business strategy and adversely affect our business, financial condition, results of operations and cash flows.
- ***The Company has identified material weaknesses in its internal control over financial reporting. The Company's failure to establish and maintain effective internal control over financial reporting and to maintain effective disclosure controls and procedures increases the risk of a material misstatement in its consolidated financial statements, and its failure to meet its reporting and financial obligations, could, in turn, have a negative impact on its financial condition. Since 2019, a total of $7.6 million has been incrementally spent on remediation efforts for management's outside consultant and design, hiring (including hiring replacements due to high turnover) and training activities.***

  Maintaining effective internal control over financial reporting is an integral part of producing reliable financial statements. As discussed in Item 9A. "Controls and Procedures" of this Form 10-K ("Item 9A"), the Company's management concluded that the Company's internal control over financial reporting was not effective for the periods referred to therein as a result of certain deficiencies that were determined to constitute material weaknesses in the Company's internal control over financial reporting. Specifically, the Company did not sufficiently attract, develop, and retain competent resources to fulfill internal control responsibilities and did not have an effective information and communication process that identified and assessed the source of and controls necessary to ensure the reliability of information used in financial reporting. As a consequence of these material weaknesses, the Company did not effectively design, implement and operate process-level controls across its financial reporting processes.

  Under standards established by the Public Company Accounting Oversight Board, a material weakness is defined as a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis.

  As of December 31, 2022, the Company continues to revise and execute management's remediation plan, including the implementation of the new and revised internal controls over financial reporting. The results of management's testing of the design, implementation and operating effectiveness of controls identified that the Company continued to have material weaknesses in its internal control over financial reporting as of December 31, 2022; however, the material weaknesses existing as of December 31, 2022 were limited to certain discrete items within the previously identified material weaknesses as described further in Item 9A.

  While progress has been made since 2019, including the remediation of a significant number of process-level control deficiencies throughout our financial reporting processes, the Company experienced significant turnover in positions relevant to its internal control over financial reporting during 2021 and 2022 that impacted the effectiveness of prior training programs and management's ability to implement control activities that operated for a sufficient period of time to allow management, through testing, to conclude that the control activities were operating effectively during 2022.

  To remediate the material weaknesses described in Item 9A, the Company, with the oversight of the Audit Committee and the assistance of management's outside consultant, has continued to revise its remediation strategy. The Company is in the process of implementing certain changes in its internal controls to remediate the material weaknesses described above. As the Company continues to evaluate and work to improve its internal control over financial reporting and disclosure controls and procedures, management may determine to take additional measures to address control deficiencies or modify the remediation plan. The Company cannot provide assurance, however, as to when it will remediate all such weaknesses, nor can it be certain of whether additional actions will be required or the costs of any such actions. Moreover, the Company cannot provide assurance that additional material weaknesses will not arise in the future. The material weaknesses cannot be considered remediated until the applicable controls have operated for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively.

  The material weaknesses discussed in Item 9A did not result in material misstatements of the Company's financial statements as of and for the years ended December 31, 2022, 2021 and 2020 or in the intervening interim periods during those respective years. Any failure to remediate the material weaknesses, or the development of new material weaknesses in its internal control over financial reporting, could result in material misstatements in the Company's consolidated financial statements and cause it to fail to meet its reporting and financial obligations, which in turn could have a negative impact on its financial condition.
- ***Tredegar has an underfunded defined benefit (pension) plan.*** Tredegar sponsors a pension plan that covers certain hourly and salaried employees in the U.S. The plan was closed to new participants in 2007, and substantially frozen to benefit accruals for active participants in 2014. As of January 31, 2018, the plan no longer accrued benefits

associated with crediting employees for service, thereby freezing all future benefits under the plan. On February 10, 2022, Tredegar announced the initiation of a process to terminate and settle its frozen defined benefit pension plan. In connection therewith, on February 9, 2022, the Company borrowed funds under its revolving credit agreement to contribute $50 million to the pension plan (the "Special Contribution") to reduce its underfunding and as part of a program within the pension plan to hedge or fix the expected future contributions that will be needed by the Company through the settlement process. The settlement process has been delayed because of longer-than-expected review times with the Internal Revenue Service ("IRS"). The Company does not expect issues with receiving approval from the IRS and is hopeful that the entire process will be completed by the end of 2023. As of December 31, 2022, the plan was underfunded under U.S. generally accepted accounting principles ("GAAP") measures by $28 million. The Company expects there will be no required minimum contributions to the pension plan until final settlement. The ultimate settlement benefit obligation may differ from the projected benefit obligation ("PBO") of $246 million as of December 31, 2022, depending on market factors for buyers of pension obligations at the time of settlement. Additionally, factors that could cause actual future contributions by the Company to settle the pension plan to differ from expectations include, without limitation, differences between the ultimate settlement benefit obligation and the PBO, census data, administrative costs, the effectiveness of hedging activities and discounts required to liquidate non-public securities held by the plan.

- ***Tredegar is subject to current and future governmental regulation, including environmental laws and regulations, and could become exposed to material liabilities and costs associated with such regulation.*** The Company is subject to regulation by local, state, federal and foreign governmental authorities. New laws and regulations, or changes to existing laws, including those relating to environmental matters (including global climate change and plastic products), and privacy matters, could subject Tredegar to significant additional capital expenditures, operating expenses or other compliance costs. Moreover, future developments in federal, state, local and international laws and regulations, including environmental laws, are difficult to predict. Environmental laws and privacy restrictions have become and are expected to continue to become increasingly strict. As a result, Tredegar expects to be subject to new environmental and privacy laws and regulations. However, any such changes are uncertain and, therefore, it is not possible for the Company to predict with certainty the amount of additional capital expenditures or operating expenses that could be necessary for compliance with respect to any such changes.

  The Company is subject to the U.S. Foreign Corrupt Practices Act, Brazilian anti-corruption laws and similar anti-bribery laws in other jurisdictions, which generally prohibit companies and their intermediaries from making improper payments to foreign officials for the purpose of obtaining or retaining business. Although we have policies and procedures designed to facilitate compliance with these laws and regulations, our employees, contractors and agents may take actions in violation of our policies. Any such violation, even if prohibited by our policies, could adversely affect our business and/or our reputation. See ***Government Regulation*** in Item 1. "Business" of this Form 10-K for a further discussion of this risk factor.

- ***Noncompliance with any of the covenants in the Company's $375 million revolving credit facility, as amended and restated on June 29, 2022, which matures in June 2027, could result in all debt under the agreement outstanding at such time becoming due and limiting the Company's borrowing capacity, which could have a material adverse effect on its consolidated financial condition and liquidity.*** The credit agreement governing Tredegar's revolving credit facility contains restrictions and financial covenants that, if violated, could restrict the Company's operational and financial flexibility. Failure to comply with these covenants could result in an event of default, which if not cured or waived, would result in all outstanding debt under the revolving credit facility at such time becoming due, which could have a material adverse effect on the Company's consolidated financial condition and liquidity.

- ***Our results of operations, financial condition and cash flows have been, and may continue to be, impacted by the Coronavirus*** ("***COVID-19").*** The COVID-19 pandemic has adversely affected the economy of the United States and other countries around the world, including affecting labor supply and causing supply chain disruptions. While some of the economic impacts resulting from COVID-19 have eased and many COVID-19 related restrictions have been lifted or relaxed due to advancements in COVID-19 vaccination, testing, and treatment, a rise in infection rates, the emergence of new COVID-19 variants, or any future pandemic could result in, among other things, a reduction in orders placed by our customers who could be closing or curtailing their own operations. We may also experience labor shortages and supply chain disruptions, including product and raw material shortages, delays, and price increases as a result of the COVID-19 pandemic or any future pandemic. Our suppliers, contractors, and third-party logistic providers may continue to experience disruptions and delays stemming from labor and supply challenges, and significant disruptions in transport and logistics services due to facility closures, labor constraints, and other challenges. These challenges may impact our ability to maintain sufficient inventory and to accurately predict demand or lead times, which may inhibit our ability to service customer demand. Additionally, addressing shortages from our current suppliers may require the Company to procure products from new suppliers or through brokers with whom we have a limited or no prior relationship.

  Providing an estimate for the ongoing impact of COVID-19 pandemic on the Company's business is difficult given the evolving nature of COVID-19 and the likelihood that any impact would be affected by factors outside of our control. Such factors may include the severity, duration and spread of COVID-19 and emerging variants, the actions that have been or may be taken by the governments of countries affected, and the ability of our customers and consumers to remain in operation and pay for the products purchased on a timely basis. Additionally, to the extent the COVID-19 pandemic or any future pandemic adversely affects our business, financial condition, or results of operations, it may heighten other risks described in this section.

Risks Related to Aluminum Extrusions

- ***Sales volume and profitability of Aluminum Extrusions is cyclical and seasonal and highly dependent on economic conditions of end-use markets in the U.S., particularly in the construction sector.*** Aluminum Extrusions' end-use markets can be cyclical and subject to seasonal swings in volume. In addition, changes in architectural design, demographic, and/or remote work trends could negatively impact the overall commercial construction industry. Because of the capital-intensive nature and level of fixed costs inherent in the aluminum extrusions business, the percentage drop in earnings before interest, taxes, depreciation and amortization ("EBITDA") from ongoing operations in a cyclical downturn will likely exceed the percentage drop in volume. In addition, during an economic slowdown, excess industry capacity often drives increased pricing pressure in many end-use markets as competitors seek to protect their position with key customers. Any benefits associated with cost reductions and productivity improvements may not be sufficient to offset the adverse effects on profitability from pricing and margin pressure and higher bad debts (including a greater chance of loss associated with customers defaulting on fixed-price forward sales contracts) that usually accompany a downturn. In addition, higher energy costs can reduce profits unless offset by price increases or cost reductions and productivity improvements.

  Starting in third quarter of 2022, the Company observed slowing order input and order cancellations as customers reported high inventory levels. There can be no assurance as to the extent and timing of the recovery of sales volumes and profits for Aluminum Extrusions, especially since there can be a lag in the recovery of its end-use markets in comparison to the overall economic recovery.

- ***The failure to successfully implement Unfairly traded imports of aluminum extrusions could injure or threaten with injury America's domestic aluminum extrusions industry, which could have an adverse effect on the new enterprise resource planning and manufacturing execution systems could adversely impact the Aluminum Extrusions business and results of operations.*** InJanuary 2022, Aluminum Extrusions obtained approval from the Board to engage in the implementation project of a new enterprise resource planning and manufacturing execution systems ("ERP/MES") across all locations of the Aluminum Extrusions business. The ERP/MES project commenced in 2022 and is expected to cost a total of approximately $30 million over a two-year time span. The implementation of these systems is a major undertaking from a financial management, and personnel perspective. The implementations may prove to be more difficult, costly, or time consuming than expected, and there can be no assurance that these systems will be beneficial to the extent anticipated. Any disruptions, delays or deficiencies in the design and implementation of the new systems could adversely affect our financial position, condition, results of operations and cash flows; additionally, any disruptions, delays or deficiencies could adversely affect our remediation efforts with respect to the effectiveness flows of our internal controls over financial reporting. Aluminum Extrusions.

  • 1. ***Failure to prevent foreign competitors from evading anti-dumping and countervailing duties, or failure to reinstate the Aluminum Tariff on aluminum extrusions, could adversely impact Aluminum Extrusions.*** Chinese and other overseas manufacturers continue to try to evade the anti-dumping and countervailing orders to avoid duties. On October 3, 2022, the U.S. International Trade Commission ("ITC") extended the anti-dumping ("AD") and countervailing duty ("CVD") orders against aluminum extrusions from China, for a period of five years. In 2018, the U.S. imposed tariffs of 10% on aluminum ingot and semi-finished aluminum imported into the U.S. from certain countries.However, countries; however, in December 2020, the Department of Commerce ("DOC") introduced a tariff exclusion process, granting applicants with tariff exclusions. In response to large and increasing volumes of unfairly traded imports of extrusions associated with these tariff exclusions, a coalition of U.S. domestic producers filed petitions with the DOC and U.S. International Trade Commission ("ITC"). In November 2023, the ITC found that there is a reasonable indication that the American aluminum extrusions industry is materially injured or threatened with injury due to imports from 14 countries, including China. The ITC's preliminary determination found that subject import volumes were significant and increasing, and that with regard to pricing, subject imports predominantly undersold the domestic product by volume in each year of the period of investigation. On March 5, 2024, the DOC announced its preliminary finding that the governments of China, Indonesia, Mexico and Turkey unfairly subsidize their aluminum extrusion industries. The DOC calculated a range of affirmative preliminary countervailing duties from each country. A

preliminary anti-dumping determination for these four countries and the 10 other countries included in the initial petition is expected in May 2024. The Company expects the final ITC vote to occur in late 2024. A failure by, or the inability of, U.S. trade officials to restore the import tariff in its full format could have a material an adverse effect on the businesses, financial condition, results of operations and cash flows of Aluminum Extrusions.

  • 2. ***The duty-free importation of goods allowed under the United States-Mexico-Canada Agreement ("USMCA"), or other free trade agreements or duty-preference regimes, could result in lower demand for aluminum extrusions made in the U.S., which could materially and negatively affect Aluminum Extrusions' business and results of operations.*** As noted above, in March 2018, the U.S. imposed tariffs of 10% on aluminum ingot and semi-finished aluminum imported into the U.S. from certain countries, including countries from which Aluminum Extrusions has historically sourced aluminum products. In September 2019, the U.S., Canada and Mexico entered into the USMCA. As a result of the 10% tariffs on aluminum ingot imported to the U.S. and the duty-free importation of goods allowed under USMCA, or other trade agreement regimes or duty-preference programs, aluminum extrusions from outside the United States made in Canada and Mexico that are able to take advantage of duty-preference programs upon importation into the United States made in Canada and Mexico are free of the

  10% tariff and can now be imported into and sold in the U.S. at very competitive prices. This could result in lower demand for aluminum extrusions made in the U.S., which could materially and negatively affect Aluminum Extrusions' business, and results of operations. operations, financial condition and cash flows.

- ***The markets for Aluminum Extrusions' products are highly competitive with product quality, service, delivery performance and price being the principal competitive factors.*** Aluminum Extrusions has approximately 1,200 1,100 customers that are in a variety of end-use markets within the broad categories of building and construction, distribution, automotive and other transportation, machinery and equipment, electrical and consumer durables. No single Aluminum Extrusions' customer exceeds 4% of consolidated net sales. Future success and prospects depend on Aluminum Extrusions' ability to provide superior service, high quality products, timely delivery and competitive pricing to retain existing customers and participate in overall industry cross-cycle growth. Failure in any of these areas could lead to a loss of customers, which could have an adverse material effect on the business, financial condition, results of operations and cash flows of Aluminum Extrusions.

- ***The failure to successfully implement the new enterprise resource planning and manufacturing execution systems could adversely impact the Aluminum Extrusions business and results of operations.*** InJanuary 2022, Aluminum Extrusions commenced the implementation of new enterprise resource planning and manufacturing execution systems ("ERP/MES") across all locations of the Aluminum Extrusions business. The implementation of these systems is a major undertaking from a financial, management, and personnel perspective. The implementations have been more difficult, time consuming and costly (approximately $21 million of spending to date) than expected. This project, which was expected to be completed in 2024, has been reorganized with an extended implementation period, due to the implementation of stringent spending measures to control financial leverage. As a result, the earliest "go-live" date for the new ERP/MES is 2025. There can be no assurance that these systems will be beneficial to the extent anticipated. Any additional disruptions, delays or deficiencies in the design and implementation of the new systems could adversely affect our financial position, results of operations and cash flows.

__Risks Related to PE Films__

- ***PE Films is highly dependent on sales associated with relatively few large customers.*** PE Films' top four customers comprised approximately 10%, 13% 10% and 16% 13% of Tredegar's consolidated net sales in 2023, 2022 2021 and 2020, 2021, respectively. The loss or significant reduction of sales associated with one or more of these customers without replacement by new business could have a material an adverse effect on the Company. Surface Protection sales have been adversely impacted by weak market demand and competitive pricing. Customer demand for electronics has continued to deteriorate since the third quarter of 2022, causing manufacturers in the supply chain to experience reduced capacity utilization and inventory corrections. In addition, these depressed market conditions, which are expected to continue Consequently, results of operations for most of the first half of 2023, are PE Films have been adversely impacting mix through reduced sales to our highest value-added customers and products.

  The Company previously reported the risk that a portion of its film products used in surface protection applications would be made obsolete impacted by customer product transitions, which principally relate to one customer, to less costly alternative processes or materials. The Company estimates that these transitions, which were complete as of the second quarter of 2022, resulted in a total decline of $7 million in pre-tax income from continuing operations as reported under GAAP and EBITDA from ongoing operations during 2022 versus 2021.

The weak demand for Surface Protection business is continuing to experience competitive pricing pressures, unrelated to the customer product transitions, that adversely impacted pre-tax income from continuing operations as reported under GAAP and EBITDA from ongoing operations by approximately $5.5 million in 2022 versus 2021. To offset the adverse impact of the customer transitions and pricing pressures, the Company is aggressively pursuing sales of new surface protection products, applications and customers and driving production efficiencies and cost savings. products.

While PE Films is undertaking efforts to expand its customer base, there can be no assurance that such efforts will be successful, or that they will offset any loss of sales and profits associated with customer transitions and other large customer declines.

- ***Failure The failure of PE Films' customers who are subject to cyclical downturns, to achieve success or maintain market share could adversely impact PE Films' sales and operating margins.*** PE Films' plastic films are used in the production of various consumer products sold worldwide. A customer's Our customers' ability to successfully develop, manufacture and market those products is integral to PE Films' success. Cyclical downturns and changing consumer preferences, particularly those driven by changes in technology, may negatively affect businesses that use PE Films' plastic film products, which could adversely affect sales and operating margins. Other factors that could adversely affect the business include (i) failure by a key customer to achieve success or maintain share in markets in which they sell products containing PE Films' materials, including as a result of customer preferences for products other than plastics, (ii) key customers using products developed by others that replace PE Films' business with such customers, (iii) delays in a key customer rolling out products utilizing new technologies developed by PE Films, and

  (iv) operational decisions by a key customer that result in component substitution, inventory reductions and similar changes.

- ***The Company's inability to protect its intellectual property rights or its infringement of the intellectual property rights of others could have a material an adverse impact on PE Films.*** The continued success of the PE Films' business depends on its ability not only to protect its own technologies and trade secrets, but also to develop and sell new products that do not infringe upon existing patents. Intellectual property litigation is very costly and could result in substantial expense and diversions of Company resources, both of which could adversely affect its consolidated financial condition, results of operations and cash flows. In addition, there may be no effective legal recourse against infringement of the Company's intellectual property by third parties, whether due to limitations on enforcement of rights in foreign jurisdictions or as a result of other factors.

- ***Disruptions to PE Films' supply chain could have a material adverse impact on PE Films.*** Certain raw materials used in manufacturing PE Films' products are sourced from single suppliers, and PE Films may not be able to quickly or inexpensively re-source from other suppliers. The risk of damage or disruption to its supply chain may increase if and when different suppliers consolidate their product portfolios, experience financial distress or disruption of manufacturing operations (such as, for example, the impact of hurricanes on petrochemical production). Failure to take adequate steps to effectively manage such events, which are intensified when a product is procured from a single supplier or location, could adversely affect PE Films' consolidated financial condition, results of operations and cash flows, and also require additional resources to restore its supply chain.

- ***Rising trade tensions could cause an increase in the cost of PE Films' products or otherwise negatively impact the Company.*** A portion of PE Film's business involves imports to and from the U.S. and other countries where the

  Company produces and sells its products. Trade tensions have been rising between the U.S. and other countries, particularly China. An increase in tariffs and other trade barriers between the U.S. and China, or between the U.S. and other countries, could cause an increase in the cost of PE Films' products or otherwise negatively impact the production and sale of the Company's products in world markets.

- ***An Further impairment of the Surface Protection reporting unit's goodwill could have a material non-cash adverse impact on our results of operations.*** The Company assesses goodwill for impairment when events or circumstances indicate that the carrying value may not be recoverable, or, at a minimum, on an annual basis (December 1st of each year). The valuation of goodwill depends on a variety of factors, including macroeconomic conditions, industry and market considerations, cost factors and overall financial performance, as well as company Company and reporting unit factors, and goodwill impairment valuations can be sensitive to assumptions associated with such factors. Failure to successfully achieve projections could result in future impairments. Impairment to the Surface Protection reporting unit's goodwill may also be caused by factors outside the Company's control, such as increasing competitive pricing pressures, weak consumer electronic market demand, lower than expected sales and profit growth rates, and various other factors. Significant and unanticipated changes could require a non-cash charge for impairment in a future period, which may significantly affect the Company's results of operations in the period of such charge.

<u>Risks Related to Flexible Packaging Films</u>

- ***Overcapacity in Latin American polyester film production and governmental failure to extend anti-dumping duties in Brazil on imported products or prevent competitors from circumventing such duties could adversely impact Flexible Packaging Films.*** In recent years, excess global capacity in the industry has led to increased competitive pressures from imports into Brazil. The Company believes that these conditions have shifted the competitive environment from a regional to a global landscape and have driven price convergence and lower product margins for Flexible Packaging Films. Favorable anti-dumping rulings or countervailing duties are in effect for products imported from China, Egypt, India, Mexico, United Arab Emirates, Peru and Bahrain. Competitors not currently subject to anti-dumping duties may choose to utilize their excess capacity by selling product in Brazil, which may result in pricing pressures that Flexible Packaging Films may not be able to offset with cost savings measures and/or manufacturing efficiency initiatives.

  In May 2021, the Brazilian authorities concluded the sunset review relating to the anti-dumping process for polyester film imported from China, India and Egypt, and decided to extend duties for another five years. However, due to its doubts that films would continue to be imported from China and Egypt, the government immediately suspended the implementation of the tariffs for those countries but agreed that if in the future there were volumes imported from China or Egypt which were harming the Brazilian market, authorities may promptly reinstate tariffs. Importing from Egypt increased in Brazil during 2023; therefore, Terphane requested the application of anti-dumping tariffs for Egypt, which was accepted by the Brazilian Government. These tariffs went into effect starting in November 2023. For films imported from India, the Brazilian authorities also reviewed measures against countervailing duties and extended those for five years as well.

  In February 2024, the Brazilian Government determined that the anti-dumping measures against Mexico and United Arab Emirates should be extended for a five-year period and anti-dumping measures against Turkey should be removed.

- ***A history of uncertain economic conditions in Brazil could adversely impact the financial condition, results of operations and cash flows of Flexible Packaging Films.*** For flexible packaging films produced in Brazil, selling prices and key raw material costs are principally determined in U.S. Dollars and are impacted by local economic conditions and local and global competitive dynamics. Flexible Packaging Films is exposed to foreign exchange translation risk (its functional currency is the Brazilian Real) because almost 90% of the sales of Flexible Packaging Films business unit in Brazil ("Terphane Ltda.") and substantially all of its related raw material costs are quoted or priced in U.S. Dollars while its variable conversion, fixed conversion and sales, general and administrative costs before depreciation & amortization (collectively "Terphane Ltda. Operating Costs") are quoted or priced in Brazilian Real. This mismatch, together with a variety of economic variables impacting currency exchange rates, causes volatility that could negatively or positively impact EBITDA from ongoing operations for Flexible Packaging Films. While Flexible Packaging Films hedges this exposure on a short-term basis with foreign exchange forward rate contracts, the exposure continues to exist beyond the hedging periods.

Other Business Risks

- ***Overcapacity in Latin American polyester film production and governmental A failure to extend anti-dumping duties in Brazil on imported products or prevent competitors from circumventing such duties could adversely impact Flexible Packaging Films.*** In recent years, excess global capacity in the industry has led to increased competitive pressures from imports into Brazil. Company's information technology systems as a result of cybersecurity attacks or other causes could negatively affect Tredegar's business. The Company believes depends on information technology ("IT") to record and process customer orders, manufacture and ship products in a timely manner, secure its production processes and know-how, maintain the financial accuracy of its business records and maintain personally identifiable information of its employees. An IT system failure due to computer viruses, internal or external security breaches, cybersecurity attacks or other malicious causes could disrupt our operations and prevent us from being able to process transactions with our customers, operate our manufacturing facilities and properly report transactions in a timely manner. Increased global IT security threats and cyber-crime pose a potential risk to the security and availability of the Company's IT systems, networks and services, including those that these conditions are managed, hosted, provided or used by third parties, as well as to the confidentiality, availability and integrity of the Company's data. Additionally, increased cybersecurity risk arises due to certain employees working remotely. To date, interruptions of the Company's IT systems have shifted the competitive environment from a regional to a global landscape been infrequent, and have driven price convergence and lower product margins for Flexible Packaging Films. Favorable anti-dumping rulings or countervailing duties are in effect for products imported from China, Egypt, India, Mexico, United Arab Emirates, Turkey, Peru and Bahrain. Competitors not currently subject to anti-dumping duties may Tredegar

  choose to utilize their excess capacity by selling product in Brazil, which may has not experienced a material cybersecurity incident. A significant prolonged failure of or security breach of the IT systems, networks or service providers the Company relies upon, or a loss or disclosure of business or other sensitive information, or personally identifiable information, as a result of a cybersecurity incident or other cause, could result in pricing pressures that Flexible Packaging Films may not substantial costs to the Company, damage to the Company's reputation, regulatory enforcement actions and lawsuits and could adversely affect the Company's business, results of operations, financial condition or cash flows.

- ***The Company's results of operations, financial condition and cash flows have been and could be able impacted by the macroeconomic effects of a pandemic.*** The COVID-19 pandemic had multiple adverse effects on the global economy, including short-term impacts affecting labor supply and causing supply chain disruptions which led to offset inflationary pressures. In addition, the pandemic resulted in certain after-shocks and structural shifts, which have adversely impacted Tredegar's markets.

  In the event of a future pandemic, Tredegar's businesses, our suppliers, contractors and third-party logistic providers could experience conditions similar to those associated with cost savings measures and/ the COVID-19 pandemic, including facility closures, labor constraints, supply chain disruptions and other challenges. These challenges could impact our ability to maintain sufficient inventory and to accurately predict demand or manufacturing efficiency initiatives. In May 2021, the Brazilian authorities concluded the sunset review lead times, which could inhibit our ability to service customer demand. Additionally, a future pandemic could heighten other risks described above.

- ***Tredegar is subject to current and future governmental regulations, including environmental laws and regulations, and could become exposed to liabilities and costs associated with such regulation.*** The Company is subject to regulation by local, state, federal and foreign governmental authorities. New laws and regulations, or changes to existing laws, including those relating to the anti-dumping process for polyester film imported from China, India environmental matters (including global climate change and Egypt, plastic products), and decided privacy matters, could subject Tredegar to extend duties for another five years. However, due significant additional capital expenditures, operating expenses or other compliance costs. Moreover, future developments in federal, state, local and international laws and regulations, including environmental laws, are difficult to its doubts that films would predict. Environmental laws and privacy restrictions have become and are expected to continue to become increasingly strict. As a result, Tredegar expects to be imported subject to new environmental and privacy laws and regulations. However, any such changes are uncertain and, therefore, it is not possible for the Company to predict with certainty the amount of additional capital expenditures or operating expenses that could be necessary for compliance with respect to any such changes.

  The Company is subject to the U.S. Foreign Corrupt Practices Act, Brazilian anti-corruption laws and similar anti-bribery laws in other jurisdictions, which generally prohibit companies and their intermediaries from China making improper payments to foreign officials for the purpose of obtaining or retaining business. Although we have policies and Egypt, the government immediately suspended the implementation procedures designed to facilitate compliance with these laws and regulations, our employees, contractors and agents may take actions in violation of the tariffs for those countries. If in the future there are volumes imported from China our policies. Any such violation, even if prohibited by our policies, could adversely affect our business and/or Egypt which are harming the Brazilian market, authorities may promptly reinstate tariffs. For India, the Brazilian authorities also reviewed measures against countervailing duties and extended those for five years as well. Considering the expiration date for anti-dumping rulings against Mexico, United Arab Emirates and Turkey in first quarter 2023, Terphane timely petitioned for a sunset review in the fourth quarter of 2022, and the Brazilian authority is in the process of reviewing the petition and data provided in order to initiate the sunset review investigation, which was formalized in February 2023. our reputation.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 1C. CYBERSECURITY

Tredegar's business model depends on the efficiency and reliability of its information systems, networks, and essential assets, with a portion of these systems and networks being administered by third-party service providers. Tredegar's Cybersecurity Program (the "Program"), which was designed utilizing a risk-based approach, was developed to not only prevent, identify, investigate, resolve, and mitigate potential cybersecurity vulnerabilities within Tredegar but also to enhance the information security posture of Tredegar's operations involving third-party service providers.

Tredegar entrusts the third-party service providers with the responsibility to institute security measure protocols that are appropriately and proportionally tailored to the corresponding risks. Additionally, Tredegar also periodically conducts assessments of the third-party service providers' security frameworks to verify the implementation of adequate security measures, to safeguard Tredegar against potential vulnerabilities.

The Program leverages a blend of automated systems, manual operations, and external evaluations to proactively identify and mitigate potential cybersecurity threats. Key components of the program include Tredegar's Cybersecurity Incident Response Plan and Cyber Crisis Management Plan. These plans encompass a strategic approach that includes detection of threats, thorough analysis of cybersecurity incidents to determine whether timely notification to the Board of Directors is necessary, containment of incidents, eradication or mitigation of threats, recovery processes, and a comprehensive post-incident review.

To further strengthen its cybersecurity posture, Tredegar employs third-party consultants who work with the internal audit and information technology ("IT") departments to assess Tredegar's information security program and practices, including incident management, service continuity, and information security compliance programs, and identify areas for improvement.

The results of such an assessment are regularly presented to the Audit Committee. Notably, these assessments include periodic penetration tests, which allow Tredegar to identify vulnerabilities, refine procedures, and enhance its crisis management and recovery capabilities. The Program is also supported by an organizational structure, involving collaboration across various business sectors and an interdisciplinary Global Data Protection and Cybersecurity Oversight Team that meets regularly to identify information security risks and appropriate risk mitigation strategies. Additionally, because Tredegar recognizes the significant role that its employees play in information security, it provides annual formal information security training to all of its employees that covers critical topics such as phishing and email security best practices.

Tredegar's IT Director has over 10 years of cybersecurity expertise, including a robust history of similar roles, cybersecurity certifications from EC-Council and ODU Global and holds a degree in Computer Science from Universidade Catolica de Pernambuco and an MBA in IT Management from Universidade Federal de Pernambuco. Our IT Director is responsible for overseeing the Program, including the prevention, mitigation, detection, and remediation of cybersecurity incidents. Tredegar's IT Director also regularly collaborates closely with key management, including the Chief Financial Officer, General Counsel, Compliance Manager, and Human Resources Executive Director, to foster effective communication within Tredegar.

The Board is responsible for risk management, with specific oversight of cybersecurity risks being delegated to the Audit Committee. The Audit Committee receives updates from the IT Director at each of its quarterly meetings. These updates encompass an assessment of Tredegar's cybersecurity risk profile, including the efficacy of Tredegar's cybersecurity policies, procedures, strategies, and areas of emerging risk. Additionally, the Board receives annual, but often more frequent, updates on Tredegar's cybersecurity systems.

Item 2. PROPERTIES

General

Most of the improved real property and the other assets used in the Company's operations are owned. Certain of the owned property is subject to an encumbrance under the Company's credit agreement (see ABL Facility. See Note 7 "Debt and Credit Agreements" to the Consolidated Financial Statements in Item 15 for more information). information.

Tredegar considers the manufacturing facilities, warehouses and other properties and assets that it owns or leases to be in generally good condition. Capacity utilization at its various manufacturing facilities can vary with product mix and normal fluctuations in sales levels. The Company believes that its Bonnell Aluminum, PE Films and Flexible Packaging Films manufacturing facilities have sufficient capacity to meet current production requirements. Tredegar's corporate headquarters, which is leased, is located at 1100 Boulders Parkway, Richmond, Virginia 23225.

The Company's principal manufacturing plants and facilities as of December 31, 2022 December 31, 2023 are listed below:

Aluminum Extrusions

Locations in the U.S.	***Locations Outside the U.S.***	***Principal Operations***
Carthage, Tennessee Clearfield, Utah (leased) Elkhart, Indiana Newnan, Georgia Niles, Michigan	None	Production of aluminum extrusions, fabrication and finishing

PE Films

Locations in the U.S.	***Locations Outside the U.S.***	***Principal Operations***
Pottsville, Pennsylvania Richmond, Virginia (technical center) (leased)	Guangzhou, China	Production of plastic films

Flexible Packaging Films

Locations in the U.S.	***Locations Outside the U.S.***	***Principal Operations***
Bloomfield, New York (technical center and production facility)	Cabo de Santo Agostinho, Brazil	Production of PET-based films

Item 3. LEGAL PROCEEDINGS

The information required by this Item 3 is set forth in Note 18 16 "Contingencies" to the Consolidated Financial Statements in Item 15 and is hereby incorporated herein by reference.

Item 4. MINE SAFETY DISCLOSURES

None.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Tredegar's common stock is traded on the New York Stock Exchange ("NYSE") under the ticker symbol "TG". There were 34,016,689 34,430,769 shares of common stock held by 1,624 1,559 shareholders of record on March 10, 2023 March 8, 2024.

Dividend Information

Prior to the third quarter of 2023, Tredegar has paid a regular cash dividend every quarter since becoming a public company in July 1989. In addition, Tredegar has paid special cash dividends Under the ABL Facility, the Company is prohibited from time making dividend payments during the fiscal quarters ending September 30, 2023 through December 31, 2024. See Note 7 "Debt and Credit Agreements" to time. On December 1, 2020, the Board declared a special dividend of $200 million, or $5.97 per share, Consolidated Financial Statements in Item 15 for more information on the Company's common stock (the "Special Dividend"). The Special Dividend was paid in December 2020. ABL Facility.

All decisions with respect to the declaration and payment of future dividends will be made by the Board in its sole discretion based upon earnings, financial condition, anticipated cash needs restrictions in the Company's revolving credit facility and other such considerations as the Board deems relevant. See Note 7 "Debt and Credit Agreements" to the Consolidated Financial Statements in Item 15 for the restrictions on the payment of dividends contained in the Company's credit agreement.

Issuer Purchases of Equity Securities

On January 7, 2008, Tredegar announced that the Board approved a share repurchase program whereby management is authorized at its discretion to purchase, in the open market or in privately negotiated transactions, up to 5 million shares of the Company's outstanding common stock. The authorization has no time limit. Tredegar did not repurchase any shares in the open market or otherwise in 2023, 2022 2021 or 2020 2021 under this standing authorization. The maximum number of shares remaining under this standing authorization was 1,732,003 at December 31, 2022 December 31, 2023. Under the ABL Facility, the Company is prohibited from making share repurchases during the fiscal quarters ending September 30, 2023 through December 31, 2024.

Stock Performance Graph

The following graph compares cumulative total shareholder returns for Tredegar, the S&P SmallCap 600 Stock Index (an index comprised of companies with market capitalizations similar to Tredegar) and the Russell 2000 Index for the five years ended December 31, 2022 December 31, 2023. Tredegar is part of both the S&P SmallCap 600 Index and Russell 2000 Index.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Tredegar Corporation, the S&P SmallCap 600 Index, and the Russell 2000 Index

*$100 invested on 12/31/17 18 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

Item 6. [RESERVED]

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations focuses on and is intended to clarify the results of our operations, certain changes in our financial position, liquidity, capital structure and business developments for the periods covered by the consolidated financial statements included in this Form 10-K. This discussion should be read in conjunction with, and is qualified by reference to, the other related information including, but not limited to, the audited consolidated financial statements (including the notes thereto) and the description of our business, all as set forth in this Form 10-K, as well as the risk factors discussed above in Item 1A.

This section provides discussion and a year-to-year comparison for the years ended December 31, 2022, 2021 December 31, 2023 and 2020. 2022.

Business Overview

General

Tredegar Corporation is an industrial manufacturer with three primary businesses: custom aluminum extrusions for the North American building and construction ("B&C"), &C, automotive and specialty end-use markets through its Aluminum Extrusions segment; surface protection films for high-technology applications in the global electronics industry through its PE Films segment; and specialized polyester films primarily for the Latin American flexible packaging market through its Flexible Packaging Films segment. With approximately 2,300 1,900 employees, the Company operates manufacturing facilities in North America, South America, and Asia.

Earnings before interest, taxes, depreciation and amortization ("EBITDA") EBITDA from ongoing operations is the measure of segment profit and loss used by Tredegar's chief operating decision maker ("CODM" ("CODM") for purposes of assessing financial performance. The Company uses sales less freight ("net sales") from continuing operations as its measure of revenues from external customers at the segment level. This measure is separately included in the financial information regularly provided to the CODM.

Earnings before interest and taxes ("EBIT" ("EBIT") from ongoing operations is a non-GAAP financial measure included in the reconciliation of segment financial information to consolidated results for the Company in Note 13 "Business Segments" to the Consolidated Financial Statements in Item 15. EBIT is not intended to represent the stand-alone results for Tredegar's ongoing operations under GAAP and should not be considered as an alternative to net income (loss) as defined by GAAP. We believe that EBIT is a widely understood and utilized metric that is meaningful to certain investors and that including this financial metric in the reconciliation of management's performance metric, EBITDA from ongoing operations, provides useful information to those investors that primarily utilize EBIT to analyze the Company's core operations.

Sales were $704.8 million in 2023 compared to $938.6 million in 2022 compared to $826.5 million in 2021. 2022. Net income from continuing operations (loss) was $28.4 million $(105.9) million ($(3.10) per diluted share) in 2023, compared with net income (loss) of $28.5 million ($0.84 per diluted share) in 2022, compared with net income from continuing operations of $57.9 million ($1.72 per diluted share) in 2021. 2022.

2022 2023 Financial Results Highlights

- EBITDA from ongoing operations for Aluminum Extrusions of $66.8 million $38.0 million was $10.9 million higher $28.8 million lower than the year of 2021 2022.
- EBITDA from ongoing operations for PE Films of $11.9 million $11.2 million was $15.7 million $0.7 million lower than the year of 2021 2022.
- EBITDA from ongoing operations for Flexible Packaging Films of $27.5 million $4.4 million was $4.2 million $23.1 million lower than the year of 2021 2022.

Other Gains and losses related to asset impairments and costs associated with exit and disposal activities, for continuing operations were not material for the years ended December 31, 2022 and 2021, respectively. Gains and losses associated with plant shutdowns, asset impairments, restructurings and other items are described in ***Results of Operations*** below.

Results of Operations

2022 2023 versus 2021 2022

The following table presents a bridge of consolidated net income (loss) from continuing operations from the year of 2021 2022 to the year of 2022 2023 with related management's discussion and analysis below the table.

(In thousands)	
Net income (loss) from continuing operations for the year ended December 31, 2021 December 31, 2022	$ 57,937 28,455
Income tax expense (benefit)	9,284 4,389
Income (loss) from continuing operations before income taxes for the year ended December 31, 2021 December 31, 2022	67,221 32,844
Increase (decrease) Change in income (loss) from increases (decreases) in the following items:	
Sales	112,109 (233,739)
Other income (expense), net	(19,441) (3,156)
Total	92,668 (236,895)
Increase (decrease) Change in income (loss) from (increases) decreases in the following items:	
Cost of goods sold	(114,352) 164,932
Freight	(6,750) 8,049
Selling, general and administrative	(3,826) 2,583
Research and development	2,453
Interest expense	(6,617)
Pension settlement loss	(92,291)
Goodwill impairment	(34,891)
Other	(2,191) (197)
Total	(127,119) 44,021
Income (loss) from continuing operations before income taxes for the year ended December 31, 2022 December 31, 2023	32,770 (160,030)
Income tax expense (benefit)	4,389 (54,125)
Net income (loss) from continuing operations for the year ended December 31, 2022 December 31, 2023	$ 28,381 (105,905)

Sales in 2022 increased 2023 decreased by 13.6% 24.9% compared with 2021. 2022. Net sales increased 18.3% decreased 25.6% in Aluminum Extrusions primarily due to an increase in average selling prices to cover higher aluminum raw material costs and higher operating costs, partially offset by lower sales volume. volume and the pass-through of lower metal costs. Net sales decreased 18.0% 21.3% in PE Films primarily due to lower volume partially offset by higher pricing associated with in Surface Protection, resulting from weak demand in the pass-through of increased resin costs. consumer electronics market and customer inventory corrections during 2023. Net sales increased decreased in Flexible Packaging Films by 20.1% 24.9% primarily due to higher selling prices lower sales volume and lower margin that the Company believes are driven by excess global capacity and competition in Brazil from the pass-through of higher resin costs, imports, partially offset by favorable product mix and higher sales volume. mix. For more information on changes in net sales and volume, see the ***Segment Operations Review*** section below.

Other income (expense), net decreased $19.4 million was $(2.1) million in 2023 compared to 2021, $1.0 million in 2022. The change in other income (expense), net was primarily due a $2.0 million charge to 2021 gains adjust the initial purchase price of $12.8 million the nonparticipating single premium group annuity contract as a result of the routine administrative process to transition the pension plan. Also, there was cash consideration of $0.3 million received in January 2023 compared to $1.4 million received in May 2022 related to customary post-closing adjustments on the sale of the investment in kaléo and $8.5 million associated with a one-time tax credit kaleo, Inc., which was sold in Brazil for unemployment/social security insurance non-income taxes resulting from a favorable decision by Brazil's Supreme Court regarding the calculation of such tax. December 2021. See Note 9 "Other Income (Expense), net" to the Consolidated Financial Statements in Item 15 for additional information.

Consolidated gross profit (sales minus cost of goods sold and freight) as a percentage of sales (gross profit margin) was 11.2% in 2023 versus 14.9% in 2022 versus 18.0% in 2021. 2022.

- The gross profit margin in Aluminum Extrusions remained flat compared decreased primarily due to: lower volume; higher labor and employee-related costs; lower labor productivity in the first half of 2023; higher supply expense (including higher paint expense associated with a shift to 2021. more painted product throughout 2023 and inflationary costs for other supplies); and higher freight rates; partially offset by higher pricing (primarily in the first quarter of 2023); lower utility costs; and favorable LIFO inventory adjustments in 2023 versus 2022. Additionally, the timing of the flow through under the first-in first-out method of aluminum raw material costs passed through to customers, previously acquired at higher prices in a quickly changing commodity pricing environment, resulted in a charge of $1.1 million in 2023 versus a benefit of $0.1 million in 2022.

- The gross profit margin in PE Films decreased increased primarily due to higher overwrap films contribution margin associated with higher volume and favorable mix, cost improvements and favorable LIFO inventory adjustments for both Surface

  Protection and overwrap films in 2023 versus 2022, partially offset by lower contribution margin for Surface Protection lower sales for non-transitioning products associated with a market slowdown, and customer inventory corrections for non-transitioning products and competitive pricing, and for previously disclosed customer product transitions transitions.

- , partially offset by pass-through lag associated with resin pricing. The gross profit margin in Flexible Packaging Films decreased primarily due to higher raw material costs and higher fixed costs, partially offset by favorable product mix, higher lower sales volume, and higher lower selling prices from the pass-through of lower resin costs and margin pressures and higher resin fixed and variable costs, partially offset by lower raw material costs.

For more information on changes in operating costs and expenses, see the ***Segment Operations Review*** section below.

As a percentage of sales, selling, general and administrative ("SG&A") and R&D expenses were 11.3% in 2023 compared with 9.1% in 2022 compared with 9.8% in 2021. 2022. While SG&A expenses and sales increased year-over-year, while R&D expenses remained consistent decreased 3.3% and 39.5% year-over-year, sales decreased $233.7 million or 24.9% compared with the prior year. Increased year period. Lower SG&A spending is was primarily due to lower employee-related compensation and lower stock-based compensation, partially offset by higher professional fees associated with business development activities.

For more information on changes in interest expense, see the internal "Corporate Expenses, Interest and external audits Other" section of the ***Segment Operations Review*** section below.

During 2023, the Company settled the pension plan, which resulted in a pre-tax pension settlement loss in the consolidated results of operation of $92.3 million. On November 3, 2023, the pension plan termination and higher employee-related compensation. settlement process was completed, and the Company's relevant pension plan obligation was transferred to Massachusetts Mutual Life Insurance Company. See Note 8 "Retirement Plans and Other Postretirement Benefits" to the Consolidated Financial Statements in Item 15 for more information.

During 2023, a non-cash partial goodwill impairment of $34.9 million was recognized, see Note 1 "Nature of Operations and Summary of Significant Accounting Policies" to the Consolidated Financial Statements in Item 15 for more information.

The effective tax rate used to compute income taxes for continuing operations for the year of 2022 2023 was 13.4% 33.8%, compared to 13.8% 13.4% in 2021. 2022. The decrease increase in the effective tax rate for continuing operations is primarily due to a discrete tax benefit benefits previously recorded in the first quarter of 2022 resulting from the implementation of new U.S. tax regulations associated with foreign tax credits published by the U.S. Treasury and Internal Revenue Service ("IRS") on January 4, 2022. These regulations overhaul various components other comprehensive income (loss) that were released as a result of the foreign tax credit regime including the determination of creditable foreign taxes and limit the amount of foreign taxes that are creditable against U.S. income taxes. This discrete benefit was pension plan termination, partially offset by an increase to a reduction in Brazilian tax incentives as a percentage of income. The stranded taxes released with the effective tax rate as the result termination of the Brazilian income pension plan represent the effect of the change in federal and state tax no longer being creditable rates on pension-related deferred tax items initially recorded in the U.S. for the foreseeable future. Lastly, the effective tax rate changed due to foreign rate differences pertaining to the Company's foreign operations and the benefit from tax incentives other comprehensive income. The related stranded taxes were released in Brazil. full in 2023. See Note 12 "Income Taxes" to the Consolidated Financial Statements in Item 15 for additional information.

Pre-tax gains and losses associated with plant shutdowns, asset impairments, restructurings and other items for continuing operations in 2022 detailed below are shown in the statements of net sales and EBITDA from ongoing operations by segment table in Note 13 "Business Segments" to the Consolidated Financial Statements in Item 15 and are included in "Asset impairments and costs associated with exit and disposal activities, net of adjustments" in the consolidated statements of income, unless otherwise noted.

($ in millions)	Q1	Q2	Q3	Q4	2022
Aluminum Extrusions:					
(Gains) losses from sale of assets, investment writedowns and other items:					
COVID-19-related expenses, net of relief [2]	$ 0.1	$ —	$ —	$ —	$ 0.1
Environmental charges at Newnan, Georgia plant[3]	—	—	—	0.1	0.1
Storm damage to the Newnan, Georgia plant[1]	—	—	—	0.1	0.1
Total for Aluminum Extrusions	$ 0.1	$ —	$ —	$ 0.2	$ 0.3
PE Films:					
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:					
Other restructuring costs - severance	$ —	$ —	$ 0.5	$ —	$ 0.5
(Gains) losses from sale of assets, investment writedowns and other items:					
COVID-19-related expenses[2]	0.1	0.1	—	—	0.2
Total for PE Films	$ 0.1	$ 0.1	$ 0.5	$ —	$ 0.7
Flexible Packaging Films:					
(Gains) losses from sale of assets, investment writedowns and other items:					
COVID-19-related expenses[2]	$ —	$ —	$ —	$ 0.1	$ 0.1
Total for Flexible Packaging Films	$ —	$ —	$ —	$ 0.1	$ 0.1
Corporate:					
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:					

Other restructuring costs - severance	$ —	$ 0.1	$ —	$ —	$ 0.1
(Gains) losses from sale of assets, investment writedowns and other items:					
Professional fees associated with business development activities[1]	1.5	0.1	—	0.8	2.4
Professional fees associated with remediation activities related to internal control over financial reporting[1]	0.4	0.8	0.8	0.6	2.6
Stock compensation expense associated with the fair value remeasurement of awards granted at the time of the 2020 Special Dividend[1]	—	(0.2)	(0.1)	—	(0.3)
Net periodic benefit cost for the frozen defined benefit pension plan in process of termination[4]	3.4	3.5	3.5	4.0	14.4
Total for Corporate	$ 5.3	$ 4.3	$ 4.2	$ 5.4	$ 19.2

1. Included in “Selling, general and administrative expenses” in the consolidated statements of income.
2. Included in “Other income (expense), net” in the consolidated statements of income.
3. Included in "Costs of goods sold" in the consolidated statements of income.
4. For more information, see “Corporate Expenses, Interest and Other” below and Note 8 “Retirement Plans and Other Postretirement Benefits” to the Consolidated Financial Statements in Item 15.

Average debt outstanding and interest rates were as follows:

(In millions, except percentages)	**2022**	2021
Floating-rate debt with interest charged on a rollover basis plus a credit spread[1]:		
Average outstanding debt balance	**$ 114.5**	$ 128.8
Average interest rate	**3.5 %**	1.8 %

1. Following the entry into the Second Amended and Restated Credit Agreement on June 29, 2022, borrowings bear an interest rate equal to SOFR plus a credit spread adjustment of 10 basis points and an amount depending on the type of borrowing and commitment fees charged on the unused amount under the Second Amended and Restated Credit Agreement. Prior to entry into the Second Amended and Restated Credit Agreement, the interest rate was based on LIBOR plus an applicable credit spread. See "***Liquidity and Capital Resources***" below for additional information.

2021 versus 2020

The following table presents a bridge of consolidated net income (loss) from continuing operations from the year of 2020 to the year of 2021 with related management's discussion and analysis below the table.

(In thousands)	
Net income (loss) from continuing operations for the year ended December 31, 2020	$ (16,833)
Income tax expense (benefit)	(8,213)
Income (loss) from continuing operations before income taxes for the year ended December 31, 2020	(25,046)
Increase (decrease) in income from increases (decreases) in the following items:	
Sales	71,165
Other income (expense), net	87,670
Total	158,835
Increase (decrease) in income from (increases) decreases in the following items:	
Cost of goods sold	(90,723)
Freight	(2,546)
Selling, general and administrative	9,282
Research and development	2,051
Amortization of intangibles	1,313
Goodwill impairment	13,696
Other	359
Total	(66,568)
Income (loss) from continuing operations before income taxes for the year ended December 31, 2021	67,221
Income tax expense (benefit)	9,284
Net income (loss) from continuing operations for the year ended December 31, 2021	$ 57,937

Sales in 2021 increased by 9.4% compared with 2020. Net sales increased 18.3% in Aluminum Extrusions primarily due to an increase in average selling prices to cover significantly higher aluminum raw material costs and higher operating costs, partially offset by lower sales volume. Net sales decreased 14.6% in PE Films primarily due to lower volume and unfavorable mix associated with the previously disclosed customer product transitions in Surface Protection, partially offset by higher pricing associated with the pass-through of increased resin costs. Net sales increased in Flexible Packaging Films by 4.0% primarily due to higher selling prices from the pass-through of higher resin costs and favorable product mix, partially offset by lower sales volume.

Other income (expense), net increased $87.7 million compared to 2020, primarily due to a 2021 gain of $8.5 million associated with a one-time tax credit in Brazil for unemployment/social security insurance non-income taxes resulting from a favorable decision by Brazil's Supreme Court regarding the calculation of such tax and a gain of $12.8 million on the Company’s investment in kaléo recognized in the full year ended December 31, 2021 compared to a loss of $60.9 million in the full year ended December 31, 2020.

Consolidated gross profit (sales minus cost of goods sold and freight) as a percentage of sales (gross profit margin) was 18.0% in 2021 versus 22.6% in 2020. The gross profit margin in Aluminum Extrusions decreased primarily due to higher labor and employee-related costs and other inflationary operating costs such as higher supply expenses, partially offset by higher pricing. The gross profit margin in PE Films decreased primarily due to Surface Protection lower sales and unfavorable mix associated with the customer product transitions, lower sales and unfavorable mix for products unrelated to customer product transitions, and margin erosion associated with higher resin costs that occurred before the resin index pricing plan was fully implemented. The gross profit margin in Flexible Packaging Films decreased due to lower sales volume and higher raw material costs, partially offset by favorable product mix and higher selling prices from the pass-through of higher resin costs.

As a percentage of sales, SG&A and R&D expenses were 9.8% in 2021 compared with 12.3% in 2020. SG&A and R&D expenses were down year-over-year, while net sales increased. Decreased spending is primarily due to non-recurring corporate costs associated with the divested Personal Care Films business, lower R&D spending in PE Films, lower stock-based compensation, and nonrecurring SG&A expenses related to the Bright View Technologies divestiture at the end of 2020.

Amortization of intangible assets decreased $1.3 million compared to 2020 primarily due to an out-of-period adjustment of $0.9 million in connection with the original valuation of intangible assets and goodwill related to the acquisition of Futura in February 2017.

During the first three months of 2020, the Company performed goodwill impairment tests and recognized a goodwill impairment charge of $13.7 million ($10.5 million after taxes), which represented the entire amount of goodwill associated with Aluminum Extrusions' AACOA reporting unit. See Note 1 "Nature of Operations and Summary of Significant Accounting Policies" to the Consolidated Financial Statements in Item 15 for additional details.

The effective tax rate used to compute income taxes for continuing operations for the year of 2021 was 13.8%, compared to 32.8% in 2020. The decrease in the effective tax rate for continuing operations is primarily due to the strong earnings of Terphane Ltda, which are included in Tredegar's U.S. consolidated tax return and, the tax impact of the local statutory tax rates of Tredegar's foreign subsidiaries being higher than the current U.S. tax rate of 21%, the benefit of tax incentives in Brazil and the release of the valuation allowance for capital loss carryforwards.

Pre-tax gains and losses associated with plant shutdowns, asset impairments, restructurings and other items for continuing operations in 2021 2023 detailed below are shown in the statements of net sales and EBITDA from ongoing operations by segment table in Note 13 "Business Segments" to the Consolidated Financial Statements in Item 15 and are included in "Asset impairments and costs associated with exit and disposal activities, net of adjustments" in the consolidated statements of income, unless otherwise noted.

($ in millions)	($ in millions)	Q1	Q2	Q3	Q4	2021	($ in millions)	Q1	Q2	Q3	Q4	2023
Aluminum Extrusions:	**Aluminum Extrusions:**											
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:												
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:												
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:												
Other restructuring costs - severance												
Other restructuring costs - severance												
Other restructuring costs - severance												
(Gains) losses from sale of assets, investment writedowns and other items:	(Gains) losses from sale of assets, investment writedowns and other items:											
Consulting expenses for ERP feasibility study[1]		$ —	$ —	$ —	$ 0.3	$ 0.3						
Futura intangible amortization out-of-period adjustment[6]		—	—	—	(0.9)	(0.9)						
Vacation accrual policy change[5]		—	—	—	(2.9)	(2.9)						

Environmental charges at Newnan, Georgia plant[3]		—	—	0.1	0.1	0.2
COVID-19-related expenses, net of relief [2]		(0.2)	0.3	0.1	(0.1)	0.1
Consulting expenses for ERP/MES project[1]						
Consulting expenses for ERP/MES project[1]						
Consulting expenses for ERP/MES project[1]						
Storm damage to the Newnan, Georgia plant[1]						
Legal fees associated with the Aluminum Extruders Trade Case[1]						
Total for Aluminum Extrusions	Total for Aluminum Extrusions	$(0.2)	$ 0.3	$ 0.2	$(3.5)	$(3.2)
PE Films:	**PE Films:**					
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:	(Gains) losses associated with plant shutdowns, asset impairments and restructurings:					
Other restructuring costs - severance		$ —	$ —	$ 0.1	$ 0.3	$ 0.4
(Gains) losses from sale of assets, investment writedowns and other items:						
Vacation accrual policy change[5]		—	—	—	(0.5)	(0.5)
COVID-19-related expenses[2]		0.2	0.1	0.1	0.1	0.5
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:						
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:						
Impairment of Richmond, Virginia Technical Center assets[3]						
Impairment of Richmond, Virginia Technical Center assets[3]						

Impairment of Richmond, Virginia Technical Center assets[3]						
Richmond, Virginia Technical Center closure expenses, including severance[3]						
Richmond, Virginia Technical Center accelerated depreciation[3]						
Richmond, Virginia Technical Center lease modification[3]						
Goodwill impairment[3]						
Total for PE Films	Total for PE Films	$ 0.2	$ 0.1	$ 0.2	$(0.1)	$ 0.4
Flexible Packaging Films:	**Flexible Packaging Films:**					
(Gains) losses from sale of assets, investment writedowns and other items:						
One-time tax credit in Brazil for unemployment/social security insurance non-income taxes resulting from a favorable decision by Brazil's Supreme Court regarding the calculation of such taxes [2,4]		$ —	$(8.5)	$ —	$ —	$(8.5)
COVID-19-related expenses[2]		—	—	—	0.1	0.1
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:						
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:						
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:						
Other restructuring costs - severance						
Other restructuring costs - severance						
Other restructuring costs - severance						

Total for Flexible Packaging Films	Total for Flexible Packaging Films	$ —	$(8.5)	$ —	$ 0.1	$(8.4)
Corporate:	**Corporate:**					
(Gains) losses associated with plant shutdowns, asset impairments and restructurings:						
Costs, net of gain associated with the sale of the Lake Zurich manufacturing facility assets		$ 0.2	$ 0.2	$(0.2)	$(0.1)	$ 0.1
Other restructuring costs - severance		—	—	—	0.2	0.2
(Gains) losses from sale of assets, investment writedowns and other items:						
(Gain) losses from sale of assets, investment writedowns and other items:						
(Gain) losses from sale of assets, investment writedowns and other items:						
(Gain) losses from sale of assets, investment writedowns and other items:						
Professional fees associated with business development activities[1]						
Professional fees associated with business development activities[1]						
Professional fees associated with business development activities[1]	Professional fees associated with business development activities[1]	0.8	0.8	0.7	1.6	3.9
Professional fees associated with remediation activities related to internal control over financial reporting[1]	Professional fees associated with remediation activities related to internal control over financial reporting[1]	0.2	0.9	0.8	1.2	3.1

Write-down of investment in Harbinger Capital Partners Special Situations Fund[2]	Write-down of investment in Harbinger Capital Partners Special Situations Fund[2]	0.1	0.4	—	—	0.5
Stock compensation expense associated with the fair value remeasurement of awards granted at the time of the 2020 Special Dividend[1]		0.4	0.1	(0.1)	—	0.4
Transition service fees, net of corporate costs associated with the divested Personal Care Films business[2]		(0.3)	(0.3)	0.1	0.2	(0.3)
Vacation accrual policy change[5]		—	—	—	(0.4)	(0.4)
Group annuity contract premium expense[2]						
Net periodic benefit cost for the frozen defined benefit pension plan in process of termination[4]						
Pension settlement loss[4]						
Total for Corporate	Total for Corporate	$ 1.4	$ 2.1	$ 1.3	$ 2.7	$ 7.5

1. Included in “Selling, general and administrative expenses” in the consolidated statements of income.
2. Included in “Other income (expense), net” in the consolidated statements of income.
3. Included in "Costs of goods sold" in the consolidated statements of income.
4. For more information, see Note 9 “Other Income (Expense), net” to the consolidated financial statements in Item 15.
5. For more information, see Note 6 “Accrued Expenses” to the consolidated financial statements in Item 15.
6. Included in “Amortization of identifiable intangibles” in the consolidated statements of income.

1. Included in “Selling, R&D and general expenses” in the consolidated statements of income.
2. Included in “Other income (expense), net” in the consolidated statements of income.
3. For more information, see the "PE Films" section below.
4. For more information, see the "Status of Current Corporate Strategic Initiatives" section below and Note 4 “Retirement Plans and Other Postretirement Benefits to the Consolidated Financial Statements in Item 15.

1. Included in “Selling, R&D and general expenses” in the consolidated statements of income.
2. Included in “Other income (expense), net” in the consolidated statements of income.
3. For more information, see the "PE Films" section below.
4. For more information, see the "Status of Current Corporate Strategic Initiatives" section below and Note 4 “Retirement Plans and Other Postretirement Benefits to the Consolidated Financial Statements in Item 15.

Average total debt outstanding and interest rates were as follows:

(In millions, except percentages)	(In millions, except percentages)	2021	2020	(In millions, except percentages)	2023	2022
Floating-rate debt with interest charged on a rollover basis at one-month LIBOR plus a credit spread:						
Average outstanding debt balance		$128.8	$33.5			
Floating-rate debt with interest charged on a rollover basis plus a credit spread:						
Average total outstanding debt balance						
Average total outstanding debt balance						

Average total outstanding debt balance						
Average interest rate	Average interest rate	1.8 %	2.3 %	Average interest rate	**7.2 %**	3.5 %

Segment Operations Review

Aluminum Extrusions

A summary of results for Aluminum Extrusions is provided below:

(In thousands, except percentages)	(In thousands, except percentages)	Year Ended December 31, 2022	2021	Favorable/ (Unfavorable) % Change	(In thousands, except percentages)	Year Ended December 31, 2023		2022	Favorable/ (Unfavorable) % Change	% Change
Sales volume (lbs)	Sales volume (lbs)	**174,670**	183,367	(4.7) %	Sales volume (lbs)	**138,451**	174,670	174,670	(20.7)	(20.7)%
Net sales	Net sales	**$637,872**	$539,325	18.3 %	Net sales	**$474,803**	$	$637,872	(25.6)	(25.6) %
Ongoing operations:	Ongoing operations:									
EBITDA	EBITDA	**$ 66,800**	$ 55,948	19.4 %						
EBITDA										
EBITDA						**$ 37,976**		$ 66,800	(43.1) %	
Depreciation & amortization	Depreciation & amortization	**(17,414)**	(16,272)	(7.0) %	Depreciation & amortization	**(17,927)**	(17,414)	(17,414)	(2.9)	(2.9)%
EBIT	EBIT	**$ 49,386**	$ 39,676	24.5 %	EBIT	**$ 20,049**	$	$ 49,386	(59.4)	(59.4) %
Capital expenditures	Capital expenditures	**$ 23,664**	$ 18,914							

Net sales in 2022 2023 increased 18.3% decreased 25.6% versus 2021. The annual increase in net sales was primarily du 2022 e to an increase in average selling prices to cover higher average aluminum raw material costs and higher operating costs, partially offset by lower sales volume. Sales volume in 2022 decreased 4.7% versus 2021, primarily due to lower shipments in sales volume and the specialty and automotive segments which declined 14.3% and 4.2%, respectively. Shipments for non-residential B&C in 2022 increased by 1.6% versus 2021. pass-through of lower metal costs.

EBITDA from ongoing operations increased $10.9 million decreased $28.8 million in 2022 2023 versus 2021, 2022, primarily due to:

- Higher pricing ($69.6 million, net of the pass-through of aluminum raw materials costs), partially offset by: lower Lower volume ($5.6 29.6 million); , higher labor and employee-related costs ($7.2 4.5 million) and , lower labor productivity in the first half of 2023 ($5.6 0.9 million); , higher supply expenses expense, including higher paint expense associated with a shift to more painted product throughout 2023 and inflationary costs for other supplies ($15.3 1.2 million), including significant price increases in paint, chemicals, packaging and other supplies; higher freight expenses ($6.3 million); higher utility rates ($3.1 0.8 million); higher maintenance expenses ($1.4 million); and higher SG&A expenses ($3.0 1.5 million); partially offset by higher pricing, primarily in the first quarter of 2023 ($4.0 million), and lower utility costs ($2.3 million);
- Inventories accounted for under the last in, first out ("LIFO") method resulted in a charge of $2.9 million in 2022 versus a benefit of $0.6 million in 2021. In addition, inventories accounted for under the first in, first out ("FIFO") method resulted in no charge or benefit in 2022 versus a benefit of $6.7 million in 2021, which related to the The timing of the flow through flow-through under the FIFO method of aluminum raw material costs passed through to customers, previously acquired at higher prices in a quickly changing commodity pricing environm environment, resulted in a charge of $1.1 million in 2023 versus a benefit of $0.1 million in 2022; and
- ent. Also, Inventories accounted for under the last in, first out ("LIFO")method resulted in a benefit of $1.2 million in 2023 versus a charge of $2.9 million in 2022. In addition, the Company recorded an unfavorable net out-of-period adjustments totaling adjustment of $0.6 million for charges related to inventory and accrued labor costs in the third quarter and accounts payable in fourth quarters of 2022.

Aluminum Extrusions believes that it has secured adequate supply sources to meet expected needs agreements for aluminum raw materials in 2023. 2024. See discussion of quantitative and qualitative disclosures about market risk in Item 7a 7A in this Form 10-K for additional information on aluminum price trends.

Projected Capital Expenditures and Depreciation & Amortization

Capital expenditures for Bonnell Aluminum are projected to be $26 million $9 million in 2023, include $11 million 2024, including $4 million for a productivity projects and $5 million for capital expenditures required to support continuity of operations. The projected spending reflects stringent spending measures that the Company has implemented to control its financial leverage (see the ***Liquidity and Capital Resources*** section for more information). The multi-year implementation of the new ERP/MES $6 million has been reorganized with an extended implementation period. As a result, the earliest "go-live" date for infrastructure upgrades at the facilities located in Niles, Michigan, Carthage, Tennessee and Newnan, Georgia, and $2 million for other strategic projects. new ERP/MES is 2025. The ERP/MES project commenced in 2022, and is expected to cost a total with spending to-date of approximately $30 million over a two-year time span. In addition to strategic projects, approximately $7 million will be required to support continuity of current operations. $21 million. Depreciation expense is projected to be $15 million $16 million in 2023. 2024. Amortization expense is projected to be $2 million in 2023. 2024.

PE Films

A summary of results for PE Films is provided below:

(In thousands, except percentages)	Year Ended December 31, 2022	2021	Favorable/ (Unfavorable) % Change
Sales volume (lbs)	**32,873**	39,429	(16.6) %
Net sales	**$97,571**	$118,920	(18.0) %
Ongoing operations:			
EBITDA	**$11,949**	$ 27,694	(56.9) %
Depreciation & amortization	**(6,280)**	(6,263)	(0.3) %
EBIT	**$ 5,669**	$ 21,431	(73.5) %
Capital expenditures	**$ 3,289**	$ 2,997	

(In thousands, except percentages)	Year Ended December 31, 2023	2022	Favorable/ (Unfavorable) % Change
Sales volume (lbs)	**29,355**	32,873 32,873	(10.7) (10.7)%
Net sales	**$76,763**	$ $ 97,571	(21.3) (21.3) %
EBITDA			
EBITDA	**$11,217**	$ 11,949	(6.1) %
Depreciation & amortization	**(6,522)**	(6,280) (6,280)	(3.9) (3.9)%
EBIT	**$ 4,695**	$ $ 5,669	(17.2) (17.2) %

Net sales in 2022 2023 decreased 18% 21.3% versus 2021, 2022, primarily due to lower volume in Surface Protection, resulting from weak demand in the consumer electronics market and overwrap films. customer inventory corrections during 2023. Sales volume in 2023 for surface protection films declined 22% and net sales declined 15% and 23%, respectively, in Surface Protection. Sales volume and net sales declined 19% and 4%, respectively, in increased 2% for overwrap films with volume declines partially offset by the pricing impact associated with the pass-through of resin costs. versus 2022.

EBITDA from ongoing operations in 2022 2023 decreased $15.7 million $0.7 million versus 2021 2022 primarily due to:

- A $14.6 million $5.7 million decrease from Surface Protection as a result of: Protection:
  - Lower contribution for: margin for non-transitioning products associated with a market slowdown and customer inventory corrections ($7.3 million), competitive pricing ($5.5 million), lower productivity ($0.6 11.1 million) and for previously disclosed customer product transitions ($6.6 0.7 million), partially offset by lower SG&A favorable pricing ($0.5 million), operating efficiencies ($2.6 million) and research and development expenses cost improvements ($1.4 3.2 million);
  - The pass-through lag associated with resin costs (a ($0.3 million charge in 2023 versus a benefit of $0.5 million in 2022 versus a charge of $2.2 million in 2021) 2022);
  - A foreign currency transaction gain of $0.2 million in 2023 versus a gain of $0.8 million in 2022 versus a loss of $0.2 million in 2021; 2022; and
  - Inventories accounted for under the LIFO method resulted in a benefit of $1.0 million in 2023 versus a charge of $0.1 million in 2022 versus a charge of $0.6 million in 2021. 2022.
- A $1.1 million decrease $5.0 million increase from overwrap films primarily due to due:
  - Higher contribution margin associated with higher volume and favorable mix ($1.3 million), cost improvements ($3.1 million) and lower volume SG&A ($1.9 0.4 million). ;
  - The pass-through lag associated with resin costs resulted (a charge of $0.2 million in 2023 versus a benefit of $0.4 million in 2022 versus a charge of $1.3 million in 2021. In addition, inventories 2022); and
  - Inventories accounted for under the LIFO method resulted in a benefit of $0.3 million in 2023 versus a charge of $0.4 million in 2022 versus 2022.

In August 2023, the Company adopted a benefit of $0.5 million in 2021.

Customer Product Transitions and Other Factors in Surface Protection

The Surface Protection component of plan to close the PE Films supports manufacturers of optical technical center in Richmond, VA and other specialty substrates used reduce its efforts to develop and sell films supporting the semiconductor market. Future research and development activities for PE Films will be performed at the facility in flat panel display products. These Pottsville, PA. PE Films continues to have new business opportunities primarily relating to surface protection films are primarily used by customers to that protect components of displays flat panel and flexible displays. The Company anticipates all activities to cease at the PE Films technical center in Richmond, VA, by the end of the first quarter of 2024. The Company recognized total expense incurred through December 31, 2023 associated with exit activities of $1.3 million for: (i) severance and related costs ($0.9 million) and (ii) building closure costs ($0.4 million). In addition, the Company recognized a non-cash asset impairment ($3.5 million), accelerated depreciation ($0.3 million) and a gain on the lease modification ($0.1 million). Net annual cash savings of $3.4 million are anticipated, which began in the manufacturing and transportation processes and then discarded.

The Company previously reported the risk that a portion of its film products used in surface protection applications would be made obsolete by customer product transitions, which principally relate to one customer, to less costly alternative processes or materials. The Company estimates that these transitions, which were complete as of the second fourth quarter of 2023.

Projected Capital Expenditures and Depreciation & Amortization

Capital expenditures for PE Films are projected to be $2 million in 2024, including $1 million for productivity projects and $1 million for capital expenditures required to support continuity of current operations. Depreciation expense is projected to be $6 million in 2024. There is no amortization expense for PE Films.

Flexible Packaging Films

A summary of results for Flexible Packaging Films is provided below:

(In thousands, except percentages)		Year Ended December 31, 2023		2022	Favorable/ (Unfavorable) % Change
Sales volume (lbs)		**88,536**		106,685	(17.0)%
Net sales	**$**	**126,326**	$	168,139	(24.9)%
Ongoing operations:					
EBITDA	**$**	**4,383**	$	27,452	(84.0)%
Depreciation & amortization		**(2,865)**		(2,444)	(17.2)%
EBIT	**$**	**1,518**	$	25,008	(93.9)%
Capital expenditures	**$**	**4,323**	$	8,151	

Net sales in 2023 decreased 24.9% compared to 2022, resulted primarily due to lower sales volume and lower margin that the Company believes were driven by excess global capacity and competition in a total decline of $7 million in pre-tax income Brazil from continuing operations as reported under GAAP and imports, partially offset by favorable product mix.

EBITDA from ongoing operations during in 2023 decreased by $23.1 million versus 2022, versus 2021. primarily due to:

- Lower selling prices from the pass-through of lower resin costs and margin pressures ($17.6 million), lower sales volume ($9.7 million), higher fixed costs ($1.0 million, primarily due to under absorption from lower production volumes) and higher variable costs ($1.3 million, including higher costs resulting from quality issues), partially offset by lower raw material costs ($5.9 million) and lower SG&A expenses ($2.3 million);

The Surface Protection business is continuing • Foreign currency transaction losses ($0.3 million) in 2023 compared to experience competitive pricing pressures, unrelated to the customer product transitions, that adversely impacted pre-tax income from continuing operations as reported under GAAP foreign currency transaction losses ($0.2 million) in 2022; and EBITDA from ongoing operations by approximately $5.5 million in 2022 versus 2021. To offset the adverse impact of the customer transitions and pricing pressures, the Company is aggressively pursuing sales of new surface protection products, applications and customers and driving production efficiencies and cost savings.

- Net unfavorable foreign currency translation of Real-denominated operating costs ($1.4 million) in 2023 versus 2022.

Projected Capital Expenditures and Depreciation & Amortization

Capital expenditures are projected to be $4 million in 2023, including: $2 million for productivity projects and $2 million for capital expenditures required to support continuity of current operations. Depreciation expense is projected to be $7 million in 2023. There is no amortization expense for PE Films.

Flexible Packaging Films

A summary of results for Flexible Packaging Films is provided below:

(In thousands, except percentages)		Year Ended December 31, 2022		2021	Favorable/ (Unfavorable) % Change
Sales volume (lbs)		**106,685**		104,569	2.0 %
Net sales	**$**	**168,139**	$	139,978	20.1 %
Ongoing operations:					
EBITDA	**$**	**27,452**	$	31,684	(13.4)%
Depreciation & amortization		**(2,444)**		(1,988)	(22.9)%
EBIT	**$**	**25,008**	$	29,696	(15.8)%
Capital expenditures	**$**	**8,151**	$	5,603	

Net sales in 2022 increased 20.1% compared to 2021, primarily due to higher selling prices from the pass-through of higher resin costs, favorable product mix and higher sales volume.

EBITDA from ongoing operations in 2022 decreased by $4.2 million versus 2021, primarily due to:

- Higher raw material costs ($17.9 million), higher fixed costs ($1.5 million), and higher SG&A expenses ($1.4 million), offset by higher selling prices from the pass-through of higher resin costs ($18.3 million), higher sales volume ($1.1 million), favorable product mix ($1.6 million), and lower variable costs ($0.1 million);
- Net unfavorable foreign currency translation of Real-denominated operating costs ($3.7 million) in 2022 versus 2021; and
- Foreign currency transaction losses ($0.2 million) in 2022 compared to foreign currency transaction gains ($0.7 million) in 2021.

Projected Capital Expenditures and Depreciation & Amortization

Capital expenditures are projected to be $8 million in 2023, including $2 million for new capacity for value-added products and productivity projects and $6 million 2024, for capital expenditures required to support continuity of current operations. Depreciation expense is projected to be $3 million in 2023. 2024. Amortization expense is projected to be $0.1 million in 2023. 2024.

Corporate Expenses, Interest and Other

Corporate expenses, net in 2022 2023 decreased by $0.6 million $1.8 million compared 2021, to 2022, primarily due to lower pension expense as a result of the pension plan termination completed in 2023 ($3.7 million), lower accruals for employee-related compensation ($2.1 million) and lower stock-based compensation ($1.4 million), partially offset by higher professional fees associated with business development activities ($1.1 million), employee-related compensation ($0.9 3.2 million) and stock-based compensation ($0.6 million), partially offset by increased professional fees associated with a charge to adjust the internal and external audits initial purchase price of the Company nonparticipating single premium group annuity contract as a result of the routine administrative process to transition the pension plan ($2.2 2.0 million).

Interest expense was $5.0 million $11.6 million in 2022 2023 in comparison to $3.4 million $5.0 million in 2021, 2022, primarily due to higher weighted average total debt outstanding, higher interest rates. rates and the write-off of $1.1 million of deferred financing fees.

Status of Current Corporate Strategic Initiatives

The status of current corporate strategic initiatives is as follows:

Agreement to Sell Terphane

On September 1, 2023, the Company announced that it had entered into a definitive agreement to sell Terphane to Oben Group (the “Contingent Terphane Sale”). Completion of the sale is contingent upon the satisfaction of customary closing conditions, including the receipt of certain competition filing approvals by authorities in Brazil and Colombia. On October 27, 2023, the Company filed the requisite competition forms with the Administrative Council for Economic Defense (“CADE”) in Brazil. The regulatory review process is ongoing and in line with the Company’s expectations. CADE’s maximum deadline for completing its review is no later than November 18, 2024. The merger review regarding the transaction was cleared by the Colombian authority in early February 2024.

As of December 31, 2023, the Company has reported results for Terphane as a continuing operation, given the early stage of the approval process by authorities. If the Contingent Terphane Sale transaction is completed, the Company expects to realize after-tax cash proceeds of $85 million after deducting projected Brazil withholding taxes, escrow funds, U.S. capital gains taxes and transaction costs. Actual after-tax net proceeds may differ from this estimate due to possible changes in deductions and the Company's tax situation during the potentially lengthy interim period to the closing date.

Pension expense under GAAP was $14.4 million in 2022, an unfavorable change of $0.5 million from 2021. In February 2022, Tredegar announced the initiation of a process to terminate and settle its frozen defined benefit pension plan. In connection therewith, Plan Termination

On September 27, 2023, the Company borrowed funds $30 million under its revolving credit agreement and made the Special Contribution to reduce Prior Credit Agreement (as defined below) in anticipation of the final funding expected for terminating its underfunding and as part of a program within the pension plan to hedge or fix the expected future contributions that will be needed by the Company through the settlement process. The settlement process has been delayed because of longer-than-expected review times with the IRS. The Company does not expect issues with receiving approval from the IRS and is hopeful that the entire process will be completed by the end of 2023. The Company realized income tax benefits on the Special Contribution of $11 million in 2022. Administrative costs for the pension plan through the settlement process are estimated at $4 to $5 million.

Tredegar’s frozen defined benefit pension plan obligation. OnOctober 31, 2023, the Company used this cash to contribute $27.7 million to fully fund the pension plan with the amount necessary to purchase from Massachusetts Mutual Life Insurance Company a nonparticipating single premium group annuity contract for $157.5 million, subject to final premium adjustments. On November 3, 2023, the pension plan termination and settlement process was underfunded on a GAAP basis (also estimated settlement basis) by $28 million at December 31, 2022, comprised of investments at fair value of $218 million completed, and a PBO of $246 million. The ultimate underfunded amount at settlement may differ from amounts existing at the end of 2022, depending on changes in market factors, including for buyers of pension obligations at the time of settlement.

Prior to the Special Contribution, GAAP pension expense was a reasonable proxy for the Company’s required minimum cash contribution relevant pension plan obligation was transferred to Massachusetts Mutual Life Insurance Company. This completed the pension plan. The plan termination process that began in February 2022. During 2023, the Company expects there will be no required minimum cash contributions until final settlement. Pension expense under GAAP is projected to be approximately $14 million in 2023, which is mainly comprised recognized a pre-tax pension settlement loss of non-cash amortization of deferred net actuarial losses reflected in the Company’s shareholders’ equity as accumulated other comprehensive losses. Beginning in 2022, and consistent with no expected required minimum cash contributions, no pension expense is included in calculating earnings before interest, taxes, depreciation and amortization as defined in the Company’s revolving credit agreement (“Credit EBITDA”).

Net capitalization and other credit measures are provided in ***Liquidity and Capital Resources***, below. $92.3 million.

Liquidity and Capital Resources

The Company continuously focuses on working capital management. Measures such as days sales outstanding (“DSO”), days inventory outstanding (“DIO”) and days payables outstanding (“DPO”) are used to evaluate changes in working capital. Changes in operating assets and liabilities from continuing operations from December 31, 2021 December 31, 2022 to December 31, 2022 December 31, 2023 are summarized below. Cash flows for discontinued operations have not been separately disclosed in the consolidated statements of cash flows.

- Accounts and other receivables decreased $18.8 million $16.6 million or 18.2% 19.6%.
  - Accounts and other receivables in Aluminum Extrusions decreased by $10.4 million $15.4 million primarily due to lower sales volume and the pass-through of lower metal costs, partially offset by an increase in average selling prices to cover higher operating costs in the fourth quarter of 2022 versus 2021. costs. DSO (computed using trailing 12 months net sales and a rolling 12-month average of accounts and other receivables balances) was approximately 45.1 days in 2023 and 48.7 days in 2022 and 47.6 days in 2021. 2022.

- Accounts and other receivables in PE Films decreased by $6.5 million increased $0.6 million primarily due to lower higher sales volume in both Surface Protection and overwrap films, partially offset by increased overwrap films lower sales as a result of the pricing impact associated with the pass-through of higher resin costs. volume in Surface Protection. DSO was approximately 26.3 days in 2023 and 30.3 days in 2022 and 28.5 days in 2021. 2022.
- Accounts and other receivables in Flexible Packaging Films decreased by $1.7 million $1.9 million primarily due to lower sales volume in the fourth quarter of 2022 versus 2021. sales. DSO was approximately 38.1 days in 2023 and 41.1 days in 2022 and 40.0 days in 2021. 2022.

- Inventories increased $39.2 million decreased $45.7 million or 44.3% 35.8%.
  - Inventories in Aluminum Extrusions increased by $16.8 million decreased $24.1 million primarily due to increased decreased raw material levels due which align to lower than anticipated customer orders, order cancellations as customers report high demand and strict working capital targets, partially offset by a LIFO inventory levels, and increased aluminum supplier costs. benefit of $1.2 million in 2023 versus a charge of $2.9 million in 2022. DIO (computed using trailing 12 months costs of goods sold calculated on a FIFO basis and a rolling 12-month average of inventory balances calculated on the FIFO basis) was approximately 51.6 days in 2023 and 53.6 days in 2022 and 41.4 days in 2021. 2022.
  - Inventories in PE Films has remained consistent with prior year. decreased $1.9 million due to lower raw materials costs, partially offset by a LIFO inventory benefit of $1.3 million in 2023 versus a charge of $0.5 million in 2022. The DIO of was approximately 62.8 57.2 days in 2021 increased to 2023 and 66.8 days in 2022 primarily due to the weak market demand for Surface Protection's products. 2022.
  - Inventories in Flexible Packaging Films increased by $22.5 million decreased $19.7 million primarily due to the impact lower raw material purchases, lower work-in-process and finished goods levels as a result of lower sales volume. DIO of approximately 117.7 days in 2023 was higher average resin prices on raw materials, higher planned finished good levels and the impact from the change in the U.S. dollar value of currencies related compared to operations outside of the U.S. DIO was approximately 108.0 days for 2022 due to the lower 12-month average of costs of goods sold as a result of lower sales volume and lower margin that the Company believes are driven by excess global capacity and competition in 2022 and 93.1 days in 2021. Brazil from imports.
- Net property, plant and equipment increased decreased by $16.0 million $3.0 million or 9.4% 1.6% primarily due to capital expenditures depreciation expense ($25.8 million) and the impairment of $40.1 million assets from the closure of the Richmond, VA technical center ($3.5 million), partially offset by depreciation expense of $23.9 million capital expenditures ($25.6 million).
- Identifiable intangible assets, net decreased by $2.5 million $1.8 million or 17.7% 15.7% primarily due to amortization expense.
- Deferred income tax assets decreased $1.8 million increased $11.1 million or 11.6% 80.1% primarily due to changes an increase in other comprehensive income net operating loss, tax credit and the projected utilization for foreign interest limitation carryforwards. Deferred tax credits, partially offset by the change in liabilities related to intangible amortization and depreciation decreased $11.8 million while deferred tax liability as a result of the implementation of new U.S. tax regulations associated with foreign tax credits published by the U.S. Treasury taxes assets related to pension, employee benefits and IRS on January 4, 2022 inventory decreased $10.6 million. See Note 12 "Income Taxes" to the Consolidated Financial Statements in Item 15 for additional information.
- Accounts payable decreased by $8.8 million $19.9 million or 7.1% 17.3%.
  - Accounts payable in Aluminum Extrusions decreased by $11.3 million $15.7 million, primarily due to lower raw material purchases due to higher than anticipated on-hand inventory quantities, partially offset by favorable payment terms align with certain vendors. demand and strict working capital targets. DPO (computed using trailing 12 months costs of goods sold calculated on a FIFO basis and a rolling 12-month average of accounts payable balances) was approximately 49.8 days in 2023 and 64.2 days in 2022 and 60.1 days in 2021. 2022.
  - Accounts payable in PE Films decreased by $3.7 million primarily remained relatively flat. DPO of approximately 43.4 days in 2023 was lower compared to 51.0 days for 2022 due to lower raw material purchases. DPO was approximately 51.0 days in 2022 and 44.0 days in 2021. materials associated with overwrap films.
  - Accounts payable in Flexible Packaging Films increased by $5.6 million decreased $3.9 million, primarily due to higher resin costs related to lower raw material purchases, in 2022 lower work-in-process, and favorable payment terms with certain vendors. finished goods levels as a result of lower sales volume. DPO was approximately 61.7 days in 2023 and 72.4 days in 2022 and 68.2 days in 2021. 2022.

Net cash provided by operating activities was $24.0 million in 2023 compared to net cash used in operating activities was of $20.8 million in 2022 compared to net cash provided by operating activities of $70.6 million in 2021. 2022. The change in operating activities is primarily due to the Special Contribution ($50 million), higher income taxes paid during pension plan contributions of $27.7 million in 2023 compared to $50 million in 2022 and higher improved working capital due to factors discussed earlier in this section relating to accounts and other receivables, inventories and accounts payable.

Net cash used in investing activities was $26.2 million in 2023 compared to $35.5 million in 2022 compared to net cash provided by investing activities of $24.5 million in 2021. 2022. The change in investing activities is primarily due to higher lower capital expenditure spending ($9.5 million), cash proceeds received in 2021 in connection with the sale of the Company's investment in kaléo ($47.1 million) and the sale of the Lake Zurich manufacturing facility assets in 2021 ($4.7 10.4 million).

Net cash used in financing activities was $4.5 million in 2023 compared to net cash provided by financing activities was $45.4 million in 2022 compared to net cash used in financing activities of $76.8 $45.4 million in 2021. 2022. The change in financing activities is primarily due to higher lower net borrowings ($125.0 55.6 million) under the ABL Facility and the Prior Credit Agreement (as defined and Terphane Brazil Loan (defined below) to fund the $50 million Special Contribution to the pension plan and working capital, , higher deferred financing costs ($1.2 2.8 million) associated with the refinancing of the Credit Agreement, partially offset by lower dividends paid in June 2022, repurchases of employee common stock for tax withholdings of $0.4 million in 2022, and $0.9 million of proceeds from the exercise of stock options in the first nine months of 2021.

The Company believes that existing borrowing availability, current cash balances and cash flow from operations will be sufficient to satisfy short term material cash requirements related to working capital, capital expenditure, debt repayments and dividend requirements for at least the next twelve months. In the longer term, liquidity will depend on many factors, including results of operations, the timing and extent of capital expenditures, changes in operating plans, or other events that would cause the Company to seek additional financing in future periods. 2023 ($8.1 million).

At December 31, 2022 December 31, 2023, Tredegar had cash, and cash equivalents and restricted cash of $19.2 million $13.5 million, including funds held in locations outside the U.S. of $10.3 million $9.8 million.

Debt and Credit Agreements

ABL Facility

On June 29, 2022 August 3, 2023, Tredegar the Company entered into a Amendment No. 2 to the Second Amended and Restated Credit Agreement (" (collectively the "Prior Credit Agreement") that replaced its existing $375 million five-year, , which amended the financial covenants and decreased aggregate borrowings from $375 million to $200 million.

On December 27, 2023, the Company entered into Amendment No. 3 (the "ABL Facility") to the Prior Credit Agreement, which provides the Company with $180 million senior secured asset-based revolving credit facility that was due to will expire on June 28, 2024 June 30, 2026. The Credit Agreement is a five-year, revolving, secured credit facility that permits aggregate borrowings of $375 million and matures on June 29, 2027.

Net capitalization and indebtedness as defined under the Credit Agreement as of December 31, 2022 were as follows:

Net Capitalization and Indebtedness as of December 31, 2022 (In thousands)		
Net capitalization:		
Cash and cash equivalents	$	19,232
Debt:		
Credit Agreement		137,000
Debt, net of cash and cash equivalents		117,768
Shareholders' equity		201,762
Net capitalization	$	319,530
Indebtedness as defined in Credit Agreement:		
Total debt	$	137,000
Indebtedness	$	137,000

Borrowings under the Credit Agreement bear an interest rate equal to Secured Overnight Financing Rate ("SOFR") plus a credit spread adjustment of 10 basis points ("Adjusted Term SOFR Rate") and an amount depending on the type of borrowing and commitment fees charged on the unused amount under the Credit Agreement at various Total Net Leverage Ratio levels as follows:

Pricing Under the Credit Agreement (Basis Points)		
Total Net Leverage Ratio	Term Benchmark Spread	Commitment Fee
<= 1.0x	150.0	20
>1.0x but <=2.0x	162.5	25
>2.0x but <=3.0x	175.0	30
>3.0x but <=3.5x	187.5	35
>3.5x	200.0	40

At December 31, 2022, $137.0 million of the outstanding debt was principally priced at an interest rate equal to the Adjusted Term SOFR Rate plus the applicable credit spread of 162.5 basis points. Prior to the Credit Agreement, the interest rate on borrowings was based on LIBOR plus an applicable credit spread.

The primary restrictive covenants in the Credit Agreement include:

- Total Net Leverage Ratio of 4.00x;
- Interest Coverage Ratio of 3.00x; and
- Unlimited payments for dividends and stock repurchases during the term of the Credit Agreement so long as the Total Net Leverage Ratio is equal to or less than 2.00x, and otherwise restrictions on payments for dividends and stock repurchases for the term of the Credit Agreement at $75 million (provided that the $75 million basket will reset at the end of each fiscal quarter when the Total Net Leverage ratio is less than or equal to 2.00x).

Under the Credit Agreement:

- Total Net Leverage Ratio is defined as the ratio of (a)(i) total indebtedness minus (ii) liquidity (the lesser of $50,000,000 and the aggregate amount of cash and cash equivalents) to (b) Credit EBITDA; and
- Interest Coverage Ratio is defined as the ratio of Credit EBITDA to interest expense.

The Credit Agreement ABL Facility is secured by substantially all assets of the Company and its domestic subsidiaries, including equity in certain material first-tier foreign subsidiaries. At December 31, 2022, based upon the most restrictive covenant within the Credit Agreement, available credit Availability for borrowings under the ABL Facility is governed by a borrowing base, determined by the application of specified advance rates against eligible assets, including a portion of trade accounts receivable, inventory, cash and cash equivalents, owned real properties, and owned machinery and equipment. Upon the earlier of March 31, 2025 or the date the Company receives the proceeds from the sale of Terphane (the "ABL Adjustment Date"), the $180 million ABL Facility will be reduced to $125 million. As of December 31, 2023, availability under the ABL Facility was $22.9 million, after reducing the availability by the aggregate outstanding borrowings of $126.3 million, standby letters of credit of $13.1 million and the Minimum Liquidity (as defined in the ABL Facility) financial covenant.

Under the terms of the ABL Facility, certain domestic bank accounts are subject to blocked account agreements, each of which contains a springing feature whereby the lenders may exercise control over those accounts during a cash dominion period (any such period, a "Cash Dominion Period"). A Cash Dominion Period was implemented on the date of the closing of the ABL Facility and will remain in effect at all times prior to the ABL Adjustment Date. After the ABL Adjustment Date, a Cash Dominion Period goes into effect if availability under the ABL Facility falls below 12.5% or an Event of Default (as defined in the ABL Facility) occurs. The Company would then be subject to the Cash Dominion Period until the Event of Default is waived or ABL Facility availability is above 12.5% of the $125 million aggregate commitment for 30 consecutive days. Receipts that have not yet been applied to the ABL Facility are classified as restricted cash in the Company's consolidated balance sheets.

The financial covenants in the ABL Facility, which are reported to lenders on a monthly basis, include:

- Until the ABL Adjustment Date, the Company is required to maintain (i) minimum Credit Agreement was approximately $201 million. Total debt outstanding was $137.0 million and $73.0 million EBITDA (as defined in the ABL Facility), as of December 31, 2022 the end of each fiscal month for the 12-month period then ended (presented below) and 2021, respectively. (ii) a Minimum Liquidity (as defined in the ABL Facility) of $10.0 million.

Minimum Credit EBITDA (In thousands)		
December 2023	$	21,070
January 2024		21,110
February 2024		18,750
March 2024		16,640
April 2024		19,780
May 2024		19,660
June 2024		19,450
July 2024		21,860
August 2024		22,830
September 2024		25,370
October 2024		26,070
November 2024		27,640
December 2024		29,640
January 2025		29,740
February 2025		29,850
March 2025	$	29,980

- Following the ABL Adjustment Date, the foregoing financial covenants will cease to exist and will be replaced with a minimum fixed charge coverage ratio of 1.00:1.00 that will be triggered in the event that availability is not intended to represent net income (loss) or cash flow from operations as defined by GAAP less than 10% of $125 million commitment amount and should not be considered as an alternative to either net income (loss) or to cash flow. continuing thereafter until availability is greater than 10% of the $125 million commitment amount for 30 consecutive days.

The computations computation of Credit EBITDA, the Total Net Leverage Ratio and Interest Coverage Ratio as defined in the Credit Agreement are ABL Facility, is presented below.

Computations of Credit EBITDA Total Net Leverage Ratio and Interest Coverage Ratio (in each case, as Defined (as defined in the Credit Agreement) Along with Related Primary Restrictive Covenants ABL Facility) as of and for the Twelve Months Ended December 31, 2022 December 31, 2023 *

Computations of Credit EBITDA for the twelve months ended December 31, 2022 December 31, 2023 (in thousands):		
Net income (loss)	$	28,455 (105,905)
Plus:		
After-tax losses related to discontinued operations		—
Total income tax expense for continuing operations		4,389 —
Interest expense		4,990 11,607
Depreciation and amortization expense for continuing operations		26,403 27,683
All non-cash losses and expenses, plus cash losses and expenses not to exceed $10,000, for continuing operations that are classified as unusual, extraordinary or which are related to plant shutdowns, asset impairments and/or restructurings (cash-related of $5,898) $8,749)		5,924 139,860
Charges related to stock option grants and awards accounted for under the fair value-based method		1,424 231
Losses related to the application of the equity method of accounting		—
Losses related to adjustments in the estimated fair value of assets accounted for under the fair value method of accounting		—
Fees, costs and expenses incurred in connection with the amendment process		—
Terphane sale transaction costs in an amount not to exceed $10,000		5,038
Minus:		
After-tax income related to discontinued operations		(74) —
Total income tax benefits for continuing operations		— (54,125)
Interest income		(57) (522)
All non-cash gains and income, plus cash gains and income in excess of $10,000, for continuing operations that are classified as unusual, extraordinary or which are related to plant shutdowns, asset impairments and/or restructurings		— (100)
Income related to changes in estimates for stock option grants and awards accounted for under the fair value-based method		—
Income related to the application of the equity method of accounting		—
Income related to adjustments in the estimated fair value of assets accounted for under the fair value method of accounting		(1,406) (262)
Plus cash dividends declared on investments in an amount not to exceed $10,000 for such period		—
Plus or minus, as applicable, pro forma EBITDA adjustments associated with acquisitions and asset dispositions		—
Plus or minus, as applicable, pro forma EBITDA adjustments to pension expense associated with the early payment of pension obligations		14,400 10,664
Credit EBITDA	$	84,448 34,169

Computations of leverage and interest coverage ratios

* Credit EBITDA is not intended to represent net income (loss) or cash flow from operations as defined in Credit Agreement at December 31, 2022: by GAAP and should not be considered as an alternative to either net income (loss) or to cash flow.

The computation of the ABL Facility availability and Minimum Liquidity covenant, as defined in the ABL Facility, is presented below.

Total Net Leverage Ratio		1.39x Year Ended
		16.92x December 31,
Interest Coverage Ratio (In thousands, except percentages)		Most restrictive covenants as defined in Credit Agreement: 2023
Unlimited payments for dividends and stock repurchases during the term of the Credit Agreement so long as the Total Net Leverage Ratio is equal to or less than 2.00x, and otherwise restrictions on payments for dividends and stock repurchases for the term of the Credit Agreement at $75 million Maximum aggregate principal	$	— 180,000
Maximum Total Net Leverage Ratio permitted borrowing limit per the Borrowing base as defined in the ABL Facility (includes eligible domestic cash and cash equivalents of $3,846)	4.00x $	172,286
ABL Facility outstanding debt (matures on June 30, 2026)		126,322
Outstanding standby letters of credit		13,080
ABL Facility availability	$	32,884
Minimum Interest Coverage Ratio permitted Liquidity covenant		3.00x 10,000
ABL Facility availability in excess of Minimum Liquidity covenant	$	22,884

Tredegar In addition to the financial covenants, the ABL Facility contains restrictive covenants, including covenants that restrict the Company's ability to pay dividends and repurchase shares of its common stock.

As of December 31, 2023, the Company was in compliance with all debt covenants.

Terphane Brazil Loan

On October 26, 2023, Terphane Ltda., the Company's wholly owned subsidiary in Brazil, borrowed $20 million secured by certain of its debt covenants as of December 31, 2022 assets ("Terphane Brazil Loan"). Noncompliance with any This U.S. Dollar borrowing matures on October 30, 2028. The Company expects that the Terphane Brazil Loan will be repaid (and collateral released) upon the closing of the debt covenants may have a material adverse effect on its financial condition or liquidity, in the event such noncompliance cannot be cured or should Contingent Terphane Sale. On October 26, 2023, the Company be unable borrowed $20 million from Terphane Brazil (the "Intercompany Loan") at the same interest rate as the Terphane Brazil Loan, thereby transferring the funds to obtain a waiver from the lenders. Renegotiation U.S. The Company will repay the Intercompany Loan in conjunction with the closing of the covenant through an amendment Contingent Terphane Sale.

For more information on the ABL Facility and the Terphane Brazil Loan, see Note 7 "Debt and Credit Agreements" to the Credit Agreement may effectively cure Consolidated Financial Statements in Item 15.

The Company believes that existing borrowing availability, current cash balances and cash flow from operations will be sufficient to satisfy short term material cash requirements related to working capital, capital expenditure, and debt repayments for at least the noncompliance, but may have an effect next 12 months. In the longer term, liquidity will depend on its financial condition many factors, including the results of operations, the timing and extent of capital expenditures, changes in operating plans, or liquidity depending upon how other events that would cause the covenant is renegotiated.

Company to seek additional financing in future periods. In addition, the completion of the Contingent Terphane Sale would provide additional liquidity.

Material Cash Requirements for Known Contractual and Other Obligations

The Company's material cash requirements from known contractual and other obligations as of December 31, 2022 December 31, 2023 were as follows:

Long-term debt Debt and interest payments

As of December 31, 2022 December 31, 2023, the Company had outstanding debt from the ABL Facility of $137.0 million $126.3 million with contractual payments due in June 2027. 2026. Estimated future interest payments associated with outstanding debt the ABL Facility total $37.7 $28.6 million, with $8.4 $11.5 million payable within the next 12 months.

Pension and other postretirement obligations

In February 2022, Tredegar announced the initiation As of a process to terminate and settle its frozen defined benefit pension plan, which could take up to 24 months to complete. In connection therewith, on February 9, 2022 December 31, 2023, Terphane Ltda., the Company borrowed funds Company's wholly owned subsidiary in Brazil, had outstanding debt of $20.0 million under its revolving credit agreement and contributed a $50 million Special Contribution to the pension plan to reduce its underfunding and as part of a program within the pension plan to hedge or fix the expected Terphane Brazil Loan. Estimated future contributions that will be needed by the Company through the settlement process. The Company estimates that, interest payments associated with the Special Contribution, there will be no required minimum contributions to the pension plan until final settlement. Tredegar expects that the final settlement funding will be approximately $28 million but may differ from this expectation based on changes in market factors, including from buyers of pension obligations at the time of settlement.

Tredegar also has a non-qualified supplemental pension plan covering certain employees. Effective December 31, 2005, further participation in this plan was terminated and benefit accruals for existing participants were frozen. The plan was designed to restore all or a part of the pension benefits that would have been Terphane Brazil Loan total $7.9 million, with $2.3 million payable to designated participants from the principal pension plans if it were not for limitations imposed by income tax regulations. The projected benefit obligation relating to this unfunded plan was $1.7 million, of which the Company expects to pay $0.2 million in the next 12 months.

In addition to providing pension benefits, the Company provides postretirement life insurance and health care benefits for certain groups of employees. As of December 31, 2022, the aggregate benefit obligation for the Company's other post retirement plans was $5.7 million, of which the Company expects to pay $0.5 million in within the next 12 months.

Capital expenditure commitments

See "*Projected Capital Expenditures and Depreciation & Amortization*" within "***Segment Operations Overview***" above in this Item 7 for discussion of the Company's planned investment in capital expenditures in 2023, 2024, of which $13.3 million $1.2 million are contractual commitments that existed as of December 31, 2022 December 31, 2023.

Operating Leases

The Company enters into various operating leases primarily for real estate, office equipment and vehicles. See Note 4 "Leases" to the Consolidated Financial Statements in Item 15 for additional information.

Uncertain Tax Positions

As of December 31, 2022 December 31, 2023, unrecognized tax benefits on uncertain tax positions were $0.6 million $0.7 million. Tax payments resulting from the successful challenge by the taxing authority on uncertain tax positions taken by Tredegar would possibly result in the payment of estimated interest and penalties of $0.1 million $0.2 million if tax payments were made as a result of a successful challenge by the taxing authority on uncertain tax positions. Due to uncertainties in the timing of potential tax audits, the timing of the resolution of these positions is uncertain. Therefore, the Company is unable to make a reasonably reliable estimate of the timing of payments beyond 12 months. See Note 12 "Income Taxes" to the Consolidated Financial Statements in Item 15 for additional information.

Off-Balance Sheet Arrangements

The Company has no material off-balance sheet arrangements that have had or are reasonably likely to have a material current or future effect on its financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

From time to time, the Company enters into transactions with third parties in connection with the sale of assets or businesses in which it agrees to indemnify the buyers or third parties involved in the transaction, or the sellers or third parties involved in the transaction agree to indemnify Tredegar, for certain liabilities or risks related to the assets or business. Also, in the ordinary course of business, the Company may enter into agreements with third parties for the sale of goods or services that may contain indemnification provisions. In the event that an indemnification claim is asserted, liability for indemnification would be subject to an assessment of the underlying facts and circumstances under the terms of the applicable agreement. Further, any indemnification payments may be limited or barred by a monetary cap, a time limitation, or a deductible or basket. For these reasons, the Company is unable to estimate the maximum potential amount of the potential future liability under the indemnity provisions of these agreements. Tredegar does, however, accrue for losses for any known contingent liability, including those that may arise from indemnification provisions, when future payment is probable and the amount is reasonably estimable. The Company discloses contingent liabilities if the probability of loss is reasonably possible and material.

Critical Accounting Policies and Estimates

The preparation of financial statements in accordance with GAAP requires the Company to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. Certain accounting policies, as described below, are considered "critical accounting policies" because they are particularly dependent on estimates made by management about matters that are inherently uncertain and could have a material impact on the Company's consolidated financial statements. Estimates and judgments are based on historical experience, forecasted events and various other assumptions that management believes are reasonable under the circumstances. Actual results could differ significantly from those estimates under different assumptions and conditions. A summary of all of our significant accounting policies is included in Note 1 "Nature of Operations and Summary of Significant Accounting Policies" to the Consolidated Financial Statements in Item 15.

Impairment of Goodwill

The Company assesses goodwill for impairment when events or circumstances indicate that the carrying value may not be recoverable, or, at a minimum, on an annual basis (December 1st of each year). When assessing goodwill for impairment, accounting guidance allows the Company to first perform a qualitative assessment ("Step 0 analysis"), which evaluates certain qualitative factors, including macroeconomic conditions, industry and market considerations, cost factors and overall financial performance, as well as company and reporting unit factors. If the Company's Step 0 analysis indicates that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then the Company would perform a quantitative impairment test ("Step 1 analysis").

During 2023, uncertainty about the three months ended September 30, 2022, events timing of a recovery in the consumer electronics market persisted, and circumstances indicated that manufacturers in the supply chain for consumer electronics continued to experience reduced capacity utilization and inventory corrections. In light of the limited visibility on the timing of a recovery and the expected adverse future impact to the Surface Protection reporting unit ("Surface Protection"), which is also business, coupled with a cautious outlook on new product development opportunities, the asset group, might be impaired. The Company performed a Step 1 analysis and long-lived goodwill impairment analysis, for as of June 30, 2023 and September 30, 2023, of the Surface Protection and determined component of PE Films. The analyses concluded that the fair value of Surface Protection exceeded was less than its carrying value, by 18.6%. thus a non-cash partial goodwill impairment of $34.9 million ($27.0 million after deferred income tax benefits) was recognized during 2023.

The Company estimated the fair value of Surface Protection at September 30, 2022 by: (i) computing a weighted average an estimated enterprise value ("EV") utilizing both the discounted cash flow method (the "DCF Method") and market multiple (the "Market Multiple Method") methods, , (ii) applying adjustments for any surplus or deficient working capital, (iii) adding cash and cash equivalents, and (iv) subtracting interest-bearing debt. The Company's estimate of Surface Protection's EV as of September 30, 2022 was determined by weighting the Market Multiple Method by 20% and the DCF Method by 80%. A heavier weighting towards the DCF Method was used, since incorporating Surface Protection's latest projections, better which reflect updated expected market recovery from the weak market demand, levels, feasibility of launching new product applications, competitive pricing and cash flows associated with new surface protection products, applications, customers, production efficiencies, as well as consideration of cost savings and cost savings. inventory corrections.

Key financial assumptions utilized to determine the fair value of the reporting unit includes include revenue growth projections and a weighted average cost of capital assumption. At September 30, 2022 September 30, 2023, the effect of a ten percent decrease in the revenue growth projections and a one percent increase to the weighted average cost of capital assumption would further decrease the fair value of the reporting unit's fair value by approximately $5 million $1 million. Further impairment to the Surface Protection reporting unit's goodwill may be caused by factors outside the Company's control, such as increasing competitive pricing pressures, weak consumer electronic market demand, lower than expected sales and $6 million, respectively.

Customer demand for electronics has continued to deteriorate since the third quarter of 2022, causing manufacturers in the supply chain to experience reduced capacity utilization profit growth rates, and inventory corrections. In addition, these depressed market conditions, which are expected to continue through the first half of 2023, are adversely impacting mix through reduced sales to our highest value-added customers and products. various other factors. Given the uncertain demand for Surface Protections products, it is reasonably possible that the cash flow estimates used in deriving such fair value measurements may change in the future.

As of December 1, 2022 December 1, 2023, the Company's reporting units with goodwill were Surface Protection in PE Films and Futura in Aluminum Extrusions. Both of these reporting units have separately identifiable operating net assets (operating assets including goodwill and identifiable intangible assets net of operating liabilities). The Company's Step 0 analyses as of December 1, 2022 analysis of these reporting units concluded that it is not more likely than not that the fair values value of each reporting unit was less greater than its carrying amount. value. Therefore, the Step 1 quantitative goodwill impairment tests for these reporting units were not necessary as of December 1, 2022. necessary. The Surface Protection and Futura reporting units had goodwill in the amounts of $57.3 million $22.4 million and $13.3 million, respectively, at December 31, 2022 December 31, 2023. See Note 1 "Nature of Operations and Summary of Significant Accounting Policies" to the Consolidated Financial Statements in Item 15 for additional information on the analysis of goodwill impairment.

Pension Benefits

Tredegar sponsors a noncontributory defined benefit (pension) plan covering certain current and former U.S. employees. The plan is closed to new participants and pay for active plan participants for benefit calculations was frozen as of December 31, 2007. As of January 31, 2018, the plan no longer accrued benefits associated with crediting employees for service, thereby freezing all future benefits under the plan. On February 10, 2022, Tredegar announced the initiation of a process to terminate and settle its frozen defined benefit pension plan, which is expected to be completed by the end of 2023.

The Company's pension plan has resulted in varying amounts of net pension income or expense, as developed from actuarial valuations and the application of GAAP. Inherent in the valuation are key assumptions including discount rates and the expected return on plan assets. Inherent in the application of GAAP includes the amortization of deferred non-cash actuarial gains or losses. Net periodic pension benefit cost under GAAP during 2022, 2021 and 2020 was $14.4 million, $14.0 million and $14.6 million, respectively, including non-cash amortization of net actuarial losses of $13.7 million, $17.0 million and $15.5 million, respectively.

The Company is required to consider current market conditions, including changes in interest rates and plan asset investment returns, in determining actuarial valuation assumptions. Assumptions may differ materially from actual results due to changing market and economic conditions, higher or lower withdrawal rates or longer or shorter life spans of participants. These differences are deferred in accumulated other comprehensive income or loss directly in shareholders' equity and subsequently amortized in net periodic pension benefit cost. Other comprehensive net actuarial losses reflected directly in shareholders' equity was $103.6 million, $109.2 million and $149.5 million on a pre-tax basis as of December 31, 2022, 2021 and 2020, respectively, which have resulted in the significant non-cash amortization costs as noted above.

Following the announcement to terminate and settle the pension plan, the Company contributed $50 million to the pension plan and implemented (through consultation with its investment advisors) a liability-matching bond portfolio investment strategy (including a derivative overlay) that hedged the estimated settlement funding gap, which was approximately $24 million (before plan administration costs) at that time. The overall objective of this hedging program is to minimize the volatility of the estimated settlement funding gap such that, as applicable interest rates move up or down causing a decrease or increase in the estimated value of the settlement liability, the value of the matching bond portfolio and derivative overlay decreases or increases by a similar amount.

The discount rate is used to determine the present value of future payments (i.e., the estimated settlement liability). In general, the estimated settlement liability increases as the discount rate decreases and vice versa. The discount rate is the single rate that, when applied to expected benefit payments, provides a present value equal to the present value of expected benefit payments, which prior to the planned termination and settlement was determined by using the AA-rated bond yield curve. Given the anticipated termination and settlement of the pension plan, the Company determined an appropriate discount rate as of December 31, 2022, based on the weighted average of lump sum settlement interest rates and estimated annuity purchase settlement rates. The weighted average discount rate utilized was 5.07%, 2.90% and 2.57% at the end of 2022, 2021 and 2020, respectively, with changes between periods due to changes in market interest rates and in 2022 also the change to a settlement discount rate estimating methodology.

A 100 basis point increase in the discount rate assumption would have decreased the projected benefit obligation / estimated settlement liability and the net periodic pension cost for the pension plan by approximately $23 million and $2 million, respectively. A 100 basis point decrease in the discount rate assumption would have increased the projected benefit obligation / estimated settlement liability and the net periodic pension cost for the pension plan by approximately $24 million and $2 million, respectively. In both assumption situations, as a result of the hedging program, the Company would expect a similar overall change in the liability matching bond portfolio and derivative overlay.

A lower expected return on plan assets increases the amount of expense and vice versa. Decreases in the level of actual plan assets will also serve to increase the amount of pension expense. The total return on plan assets (net of fees and plan expenses), which is primarily affected by the change in fair value of plan assets, current year contributions and current year payments to participants, was approximately negative 15.1% in 2022, positive 10.4% in 2021 and positive 10.9% in 2020.

The expected long-term rate return of 5.00% used in both 2021 and 2020 were determined at the end of 2020 and 2019 and therefore did not contemplate the liability-driven investment strategy discussed above, however, the expected long-term rate return of 3.05% used in 2022 and 4.99% for 2023 does contemplate the liability-driven investment strategy discussed above. See Note 8 “Retirement Plans and Other Postretirement Benefits” to the Consolidated Financial Statements in Item 15 for more information on expected long-term return on plan assets and asset mix.

Net periodic benefit cost, which excludes the impact of the expected plan settlement, for 2023 under GAAP is expected to be approximately $14 million, including non-cash amortization of other comprehensive net actuarial losses of approximately $12 million.

The Company has been monitoring the estimated settlement funding gap and the effectiveness of its liability-matching bond portfolio investment strategy through an online tool provided by its investment advisors, which increased to approximately $28 million at December 31, 2022 primarily due to administrative costs incurred by the plan.

As the settlement process occurs, the Company expects to recognize a non-cash reclassification adjustment to net income or loss of the entire remaining balance of other comprehensive net actuarial losses reflected directly in shareholders’ equity, which was approximately $104 million on a pre-tax basis at December 31, 2022.

See the ***Segment Operations Review*** section above for further discussion regarding the financial impact of the Company’s pension plans.

Income Taxes

Current tax liabilities and assets are recognized for the estimated taxes payable or refundable, respectively, on the tax returns for the current year. Deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Accordingly, accounting for income taxes represents the Company’s best estimate of various events and transactions. Tax laws are often complex and may be subject to differing interpretations by the taxpayer and the relevant governmental taxing authorities. In establishing a provision for income tax expense, Tredegar must make judgments and interpretations about the application of tax laws. The Company must also make estimates about when in the future certain items will affect taxable income in the various taxing jurisdictions.

A valuation allowance is recorded in the period when the Company determines that it is more likely than not that all or a portion of deferred income tax assets may not be realized. The establishment and removal of a valuation allowance requires the Company to consider all positive and negative evidence and make a judgmental decision regarding the amount of valuation allowance required as of a reporting date.

Tredegar may be required to change its provision for income taxes when estimates used in determining valuation allowances on deferred tax assets significantly change, or when new information indicates the need for adjustment in valuation allowances. Additionally, future events, such as changes in tax laws, tax regulations, or interpretations of such laws or regulations, could have an impact on the provision for income tax and the effective tax rate. Any such changes could significantly affect the amounts reported in the financial statements in the year these changes occur.

See Note 12 “Income Taxes” to the Consolidated Financial Statements in Item 15 for additional information on income taxes.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Tredegar has exposure to the volatility of interest rates, polyethylene and polypropylene resin prices, PTA and MEG prices, aluminum ingot and scrap prices, energy prices, foreign currencies and emerging markets. See ***Liquidity and Capital Resources*** regarding interest rate exposures related to borrowings under the Credit Agreement. ABL Facility.

Profit margins in Aluminum Extrusions are sensitive to fluctuations in aluminum ingot and scrap prices as well as natural gas prices (natural gas is the principal energy source used to operate its casting furnaces). Changes in polyethylene resin prices and the timing of those changes could have a significant impact on profit margins in PE Films. Changes in polyester resin, PTA and MEG prices, and the timing of those changes, could have a significant impact on profit margins in Flexible Packaging Films. There is no assurance of the Company’s ability to pass through higher raw material and energy costs to its customers.

The purchase price of raw materials fluctuates on a monthly basis; therefore, Aluminum Extrusions pricing policies generally allow the Company to pass the underlying index cost of aluminum and certain alloys through to the vast majority of our customers so that we remain substantially neutral to metal pricing. In the normal course of business, Aluminum Extrusions enters into fixed-price forward sales contracts with certain customers for the sale of fixed quantities of aluminum extrusions at scheduled intervals. In order to hedge its exposure to aluminum price volatility (see the chart below) under these fixed-price arrangements, which generally have a duration of not more than 12 months, the Company enters into a combination of forward purchase commitments and futures contracts to acquire or hedge aluminum, based on the scheduled deliveries. See Note 10 “Derivatives” to the Consolidated Financial Statements in Item 15 for additional information.

The volatility of quarterly average aluminum prices is shown in the chart below.

1687

Source: Quarterly averages computed by the Company using daily Midwest average prices provided by Platts.

The volatility of quarterly average natural gas prices is shown in the chart below.

1777

Source: Quarterly averages computed by Tredegar using monthly NYMEX settlement prices.

The volatility of average quarterly prices of polyethylene resin in the U.S. (a primary raw material for PE Films products) is shown in the chart below:

1938

Source: Quarterly averages computed by Tredegar using monthly data provided by IHS, Inc. In February 2020, IHS reflected a 32 cents per pound non-market adjustment based on their estimate of the growth of discounts in prior periods. The 4th quarter 2019 average rate of $0.51 per pound is shown on a pro forma basis as if the non-market adjustment was made in the fourth quarter of 2019. In January 2023, IHS reflected a 41 cents per pound non-market adjustment based on their estimate of the growth of discounts in the prior periods. The 4th quarter 2022 average rate of $0.60 per pound is shown on a pro forma basis as if the non-market adjustment was made in the fourth quarter of 2022.

The price of resin is driven by several factors, including supply and demand and the price of oil, ethylene and natural gas. Selling prices to customers are set considering numerous factors, including the expected volatility of resin prices. In certain situations, PE Films has index-based pass-through raw material cost arrangements with customers. However, under certain agreements, changes in resin prices are not passed through for a period of 90 days or more. In response to unprecedented cost increases and supply issues for polyethylene and polypropylene resin, Tredegar Surface Protection implemented a quarterly resin cost pass-through mechanism, effective July 1, 2021, for all products and customers not previously covered by such arrangements. Pricing on the remainder of the business is based upon raw material costs and supply/demand dynamics within the markets that in which the Company competes.

Polyester resins, MEG and PTA used in flexible packaging films produced in Brazil are primarily purchased domestically, with other sources available mostly from Asia and the U.S. Given the nature of these products as commodities, pricing is derived from Asian pricing indexes. The volatility of the average quarterly prices for polyester fibers in Asia, which is representative of polyester resin (a primary raw material for Flexible Packaging Films) pricing trends, is shown in the chart below:

3342

Source: Quarterly averages computed by Tredegar using monthly data from CMAI Global Index data.

The volatility of average quarterly prices of PTA and MEG in Asia (raw materials used in the production of polyester resins produced by Flexible Packaging Films) is shown in the chart below:

3539

Source: Quarterly averages computed by Tredegar using monthly data from CMAI Global Index data.

The Company sells to customers in foreign markets through its foreign operations and through exports from U.S. plants. The percentage of sales and total assets for manufacturing operations related to foreign markets for 2023, 2022 2021 and 2020 2021 are as follows:

Tredegar Corporation
Percentage of Net Sales and Total Assets Related to Foreign Markets*

	2022			2021			2020		
	% of Total Net Sales			% of Total Net Sales			% of Total Net Sales		
	Exports From U.S.	Foreign Operations	% Total Assets - Foreign Operations	Exports From U.S.	Foreign Operations	% Total Assets - Foreign Operations	Exports From U.S.	Foreign Operations	% Total Assets -Foreign Operations
Canada	**2**	**—**	**—**	2	—	—	2	—	—
Europe	**—**	**—**	**—**	1	—	—	1	—	—
Latin America	**1**	**13**	**13**	1	12	10	—	13	10
Asia	**5**	**—**	**2**	7	—	3	11	—	4
Total	**8**	**13**	**15**	11	12	13	14	13	14

* The percentages for foreign markets are relative to Tredegar's consolidated net sales and total assets .

Tredegar Corporation
Percentage of Consolidated Net Sales and Total Assets Related to Foreign Markets

	2023			2022			2021		
	% of Total Net Sales			% of Total Net Sales			% of Total Net Sales		
	Exports From U.S.	Foreign Operations	% Total Assets - Foreign Operations	Exports From U.S.	Foreign Operations	% Total Assets - Foreign Operations	Exports From U.S.	Foreign Operations	% Total Assets -Foreign Operations
Canada	**2**	**—**	**—**	2	—	—	2	—	—
Europe	**—**	**—**	**—**	—	—	—	1	—	—
Latin America	**1**	**13**	**15**	1	13	13	1	12	10
Asia	**4**	**—**	**2**	5	—	2	7	—	3
Total	**7**	**13**	**17**	8	13	15	11	12	13

Tredegar attempts to match the pricing and cost of its products in the same currency and generally views the volatility of foreign currencies and the corresponding impact on earnings and cash flow as part of the overall risk of operating in a global environment (for additional information, see trends for the Brazilian Real and Chinese Yuan in the charts on the following page). Exports from the U.S. are generally denominated in U.S. Dollars. The Company's foreign currency exposure on income from continuing foreign operations relates to the Chinese Yuan and the Brazilian Real.

PE Films is generally able to match the currency of its sales and costs for its product lines. For flexible packaging films produced in Brazil, selling prices and key raw material costs are principally determined in U.S. Dollars and are impacted by local economic conditions and local and global competitive dynamics. Flexible Packaging Films is exposed to foreign exchange translation risk (its functional currency is the Brazilian Real) because almost 90% of the sales of Flexible Packaging Films business unit in Brazil ("Terphane Ltda.") and substantially all of its related raw material costs are quoted or priced in U.S. Dollars while its variable conversion, fixed conversion and sales, general and administrative costs before depreciation and amortization (collectively "Terphane Ltda. Operating Costs") are quoted or priced in Brazilian Real. This mismatch, together with a variety of economic variables impacting currency exchange rates, causes volatility that could negatively or positively impact EBITDA from ongoing operations for Flexible Packaging Films.

The Company estimates annual net costs of R$177 139 million for the net mismatch translation exposure between Terphane Ltda.'s U.S. Dollar quoted or priced sales and raw material costs and underlying Brazilian Real quoted or priced Terphane Ltda. Operating Costs. Terphane Ltda. has outstanding foreign exchange average forward rate contracts to purchase Brazilian Real and sell U.S. Dollars to hedge its exposure. See Note 10 "Derivatives" to the Consolidated Financial Statements in Item 15 for more information on outstanding hedging contracts and this hedging program.

Tredegar estimates that the change in the value of foreign currencies relative to the U.S. Dollar on PE Films had a favorable an unfavorable impact on EBITDA from ongoing operations in PE Films of $1.1 million $0.6 million in 2022 2023 compared to 2021. 2022.

Trends for the Brazilian Real and Chinese Yuan are shown in the chart below:

6299

Source: Quarterly averages computed by Tredegar using daily closing data provided by Bloomberg.

Item 8. **FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

The information required by this Item 8 is set forth in Item 15 and is hereby incorporated herein by reference.

Item 9. **CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

Item 9A. **CONTROLS AND PROCEDURES**

On November 1, 2018, the Company filed a Current Report on Form 8-K (the "November 2018 Form 8-K") to disclose certain material weaknesses in internal control over financial reporting. For further information, see the November 2018 Form 8-K and Item 4. "Controls and Procedures" of the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2018.

As of December 31, 2022, the Company continues to revise and execute management's remediation plan, including the implementation of the new and revised internal controls over financial reporting. The results of management's testing of the design, implementation and operating effectiveness of controls identified that the Company continued to have material weaknesses in its internal control over financial reporting as of December 31, 2022; however, the material weaknesses existing as of December 31, 2022 were limited to certain discrete items within the previously identified material weaknesses.

Evaluation of Disclosure Controls and Procedures

In connection with the preparation of this Form 10-K, pursuant to Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Company carried out an evaluation with the participation of its management, including its Chief Executive Officer (principal executive officer) and Chief Financial Officer (principal financial officer), of the effectiveness of the design and operation of the Company's disclosure controls and procedures (as defined under Rule 13a-15(e) and 15d-15(e) under the Exchange Act) as of December 31, 2022 December 31, 2023.

Based on this the evaluation of our disclosure controls and procedures as of December 31, 2023, the Company's Chief Executive Officer and Chief Financial Officer concluded that, because as of the material weaknesses in internal control over financial reporting discussed below, the Company's such date, our disclosure controls and procedures were not effective as of December 31, 2022, to ensure: (i) that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act, is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and (ii) that such information is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. effective.

Management's Report on Internal Control Over over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. The Company's internal control over financial reporting is a process designed by or under the supervision of the Company's Chief Executive Officer and Chief Financial Officer, and overseen by the Board of Directors, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP and includes policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Company's assets;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that the Company's receipts and expenditures are being made only in accordance with the authorization of its management and directors; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of the Company's consolidated financial statements would be prevented or detected. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis.

Management conducted an evaluation of the effectiveness of the Company's internal control over financial reporting using the criteria in *Internal Control - Integrated Framework 2013* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "2013 COSO Framework"). Based on management's assessment, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company did not maintain Company's internal control over financial reporting was effective as of December 31, 2023.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2022 December 31, 2023, has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report, which is included in Item 15 "Exhibits and Financial Statement Schedules".

Remediation of Previously Disclosed Material Weaknesses

The As previously disclosed under "Item 9a – Controls and Procedures" in our annual report on Form 10-K for the period ended December 31, 2022, the Company did not sufficiently attract, develop, and retain competent resources to fulfill internal control responsibilities and did not have an effective information and communication process that identified and assessed the source of and controls necessary to ensure the reliability of information used in financial reporting. As a consequence of these material weaknesses, the Company did not effectively design, implement and operate process-level controls across its financial reporting processes.

While theseA material weaknesses did not result weakness is a deficiency, or combination of deficiencies, in material misstatements of the Company's consolidated internal control over financial statements as of and for the year ended December 31, 2022, these material weaknesses create reporting, such that there is a reasonable possibility that a material misstatement of account balances or disclosures in the annual or interim consolidated financial statements may will not be prevented or detected in on a timely manner. Accordingly, the Company concluded that the deficiencies represent material weaknesses in its internal control over financial reporting and its internal control over financial reporting was not effective as of December 31, 2022.

The Company's independent registered public accounting firm, KPMG LLP, which audited the 2022 consolidated financial statements included in this Form 10-K, has expressed an adverse opinion on the operating effectiveness of the Company's internal control over financial reporting. KPMG LLP's report appears on page 42 of this Form 10-K.

Remediation Plan and Efforts to Address the Identified Material Weaknesses

With the oversight of the Audit Committee of the Board of Directors (the "Audit Committee"), the Company commenced remediation efforts in the first quarter of 2019 pursuant to the original six step remediation plan that was designed with the assistance of management's outside consultant, an internationally recognized accounting firm. As of December 31, 2022, the Company continues to revise and execute management's remediation plan to implement new and revised internal controls over financial reporting. Since 2019, significant resources have been invested in the remediation efforts principally related to:

- the assistance from management's outside consultant;
- the design of internal controls for various antiquated information technology systems that lead to highly manual processes supporting financial reporting objectives;
- the hiring of additional resources with technical internal control over financial reporting expertise; and
- the establishment and execution of training programs for management on relevant internal control over financial reporting matters. basis.

In addition, During the Aluminum Extrusions business commenced the implementation of a new Board-approved enterprise resource planning and manufacturing execution systems ("ERP/MES") in the first quarter of 2022, which is expected to cost approximately $30 million over a two-year time span. The implementation will benefit the Aluminum Extrusion internal control environment by standardizing process-level controls and general information technology controls and significantly reduce the manual processes across the organization by replacing various antiquated information technology systems.

While progress has been made since 2019, including the remediation of a significant number of process-level control deficiencies throughout our financial reporting processes, the Company experienced significant turnover in positions relevant to its internal control over financial reporting during 2021 and 2022 that impacted the effectiveness of prior training programs and management's ability to implement control activities that operated for a sufficient period of time to allow management, through testing, to conclude that the control activities were operating effectively during 2022. To remediate the material weaknesses described above, year ended December 31, 2023, the Company, with the oversight of the Audit Committee and the assistance of management's outside consultant, has our Board of Directors, continued to revise its design and implement measures pursuant to management's overall internal controls over financial reporting remediation strategy with plan and also completed testing of the following design and operating effectiveness of all remediated controls. The remediation steps: efforts to date included the following:

- Continue Performed walkthroughs of the Company's financial reporting processes including identifying all information used within the Company's control environment;
- Completed a comprehensive review of, and update to, hire, train and retain individuals the documentation of relevant processes with appropriate skills and experience related respect to designing, operating and documenting the Company's internal control over financial reporting;

- Continue Developed internal control remediation plans to enhance controls as needed as for deficiencies associated with the Company remediates material weaknesses above, including an assessment of personnel skills and experience related to the design and operation of internal control deficiencies identified; activities;
- Develop Implemented all new and revised internal controls to address the previously identified deficiencies associated with the material weaknesses above;
- Expanded the internal control compliance department with personnel who have appropriate internal control experience and identified resources for control owner positions that had previously experienced turnover; and
- Executed a targeted training program to educate control owners on the principles and requirements of internal control activities, associated with the material weaknesses above including but not limited to;
    - Addressing the reliability of the underlying information used in the performance of internal control activities;
    - Retaining maintaining adequate documentary evidence for internal control activities, including the retention of evidence to support the precision of review and evidence of review procedures performed to demonstrate effective design, implementation and operation of such controls; and activities.
- Ensuring timely and consistent performance Based on management's evaluation of the effectiveness of the Company's internal controls as designed.

The material weaknesses cannot be considered of December 31, 2023, including newly remediated until controls, management concluded that the applicable controls have Company's internal control over financial reporting framework was effectively designed and operated effectively for a sufficient period of time and management has concluded, through testing, to enable us to conclude that these controls are operating effectively. The Company is committed to the improvement of its internal control over financial reporting and management continues to work with its outside consultant to assist in those efforts, as necessary. The Company continues to monitor the impact of employee turnover and other external factors on its remediation plan and its assessment of internal control over financial reporting. The Company cannot assure you when it will remediate the all previously identified material weaknesses nor can it be certain whether additional actions will be required. Moreover, the Company cannot assure you that additional material weaknesses will not arise in the future. See Item 1A. "Risk Factors" of this Form 10-K for risks and uncertainties associated with management's report on internal control over financial reporting have been remediated as of and for the year ended December 31, 2022 December 31, 2023.

Changes in Internal Control Over Financial Reporting

The Company is in the process of implementing certain changes in its internal controls to remediate the material weaknesses described above. Except as noted above with respect to the completion of certain the steps in the remediation plan, there has been no change in the Company's internal control over financial reporting during the quarter year ended December 31, 2022 December 31, 2023, that has materially affected, or is reasonably likely to materially affect, its internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act).

Item 9B. OTHER INFORMATION

None.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information concerning directors and persons nominated to become directors of Tredegar to be included in the Proxy Statement under the headings "Proposal 1: Election of Directors" and "Tredegar's Board of Directors" is incorporated herein by reference.

The information concerning corporate governance to be included in the Proxy Statement under the headings "Board Meetings, Meetings of Independent Directors and Board Committees" and "Corporate Governance and Risk Oversight" is incorporated herein by reference.

Set forth below are the names, ages and titles of the Company's executive officers:

Name	Age	Title
John M. Steitz	64 65	President and Chief Executive Officer
D. Andrew Edwards	64 65	Executive Vice President and Chief Financial Officer
Kevin C. Donnelly	48 49	Vice President, General Counsel and Corporate Secretary

John M. Steitz. Mr. Steitz was elected President and Chief Executive Officer effective March 19, 2019. He previously served as President and Chief Executive Officer of Addivant Corporation, a leading global supplier of antioxidants, intermediates, inhibitors, modifiers, UV stabilizers and other additives to the plastic and rubber industries, from March 2015 until January 2019, as President and Chief Operating Officer of PQ Corporation, a leading worldwide producer of specialty inorganic performance chemicals and catalysts, from October 2013 until March 2015, as President and Chief Executive Officer of Avantor Performance Materials, a global supplier of ultra-high-purity life sciences materials with strict regulatory and performance specifications, from September 2012 until through September 2013, as President and Chief Operating Officer of Albemarle Corporation, a global specialty chemicals company, from March 2012 until through August 2012, and as Chief Operating Officer and Executive Vice President of Albemarle from April 2007 until March 2012.

D. Andrew Edwards. Mr. Edwards was named Executive Vice President and Chief Financial Officer effective August 6, 2020. Mr. Edwards served as Vice President and Chief Financial Officer from July 20, 2015 until August 2020. He previously served as the Chief Financial Officer of United Sporting Companies, Inc., a wholesale distributor of outdoor sporting goods, from February 2013 until July 2015 and as Vice President, Controller and Chief Accounting Officer of Owens & Minor, Inc., a distributor of acute medical products, from April 2010 to February 2013 and as Acting Chief Financial Officer of Owens & Minor, Inc. from March 2012 to February 2013. Mr. Edwards also served as Vice President, Finance, of Owens & Minor, Inc. from December 2009 until April 2010. Mr. Edwards previously served as the Company's Vice President, Chief Financial Officer and Treasurer from

August 2003 to December 2009 and as the Company's Vice President, Finance from November 1998 to August 2003. Mr. Edwards also served as the Company's Treasurer from May 1997 to December 2009 and as the Company's Controller from October 1992 until July 2000.

Kevin C. Donnelly. Mr. Donnelly was elected Vice President, General Counsel and Corporate Secretary effective January 1, 2021. He joined Tredegar in 2010 and served as its Associate General Counsel from 2013 to 2020. Prior to joining Tredegar, Mr. Donnelly was an associate at Hunton & Williams LLP (now Hunton Andrews Kurth LLP). He received a B.A. degree from the University of Richmond and a J.D. from the University of Virginia.

Tredegar has a Code of Conduct that applies to all of its directors, officers and employees (including its chief executive officer, chief financial officer and principal accounting officer) and has posted the Code of Conduct on its website. All amendments to or waivers from any provision of the Company's Code of Conduct applicable to the chief executive officer, chief financial officer and principal accounting officer will be disclosed on the Company's website. The Company's internet address is www.tredegar.com.

Item 11. EXECUTIVE COMPENSATION

The information to be included in the Proxy Statement under the headings "Compensation of Directors," "Compensation Discussion and Analysis," "Executive Compensation Committee Report" and "Compensation of Executive Officers" is incorporated herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information to be included in the Proxy Statement under the heading "Equity Compensation Plan Information" is incorporated herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information to be included in the Proxy Statement under the headings "Certain Relationships and Related Transactions," "Tredegar's Board of Directors" and "Board Meetings, Meetings of Independent Directors and Board Committees" is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Our independent registered public accounting firm is KPMG LLP, Richmond, Virginia, Audit Firm ID: 185.

The following is incorporated herein by reference:

- Information on accounting fees and services to be included in the Proxy Statement under the heading "Audit and Non-Audit Fees;" and
- Information on the Audit Committee's procedures for pre-approving certain audit and non-audit services to be included in the Proxy Statement under the heading "Board Meetings, Meetings of Non-Management Directors and Board Committees—Audit Committee Matters."

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)

(a) (1) (a) (1) List of documents filed as a part of the report:

(1) Financial statements:

Tredegar Corporation

Index to Financial Statements and Supplementary Data

(a) (1)

(a) (1)

Tredegar Corporation

Tredegar Corporation

Tredegar Corporation

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Tredegar Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Tredegar Corporation and subsidiaries (the Company) as of December 31, 2022 December 31, 2023 and 2021, 2022, the related consolidated statements of income (loss), comprehensive income (loss), cash flows, and shareholders' equity for each of the years in the three-year period ended December 31, 2022 December 31, 2023, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 December 31, 2023 and 2021, 2022, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022 December 31, 2023, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022 December 31, 2023, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 16, 2023 March 15, 2024 expressed an adverse unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Goodwill impairment in the Surface Protection reporting unit

As discussed in Notes 1 and 5 to the consolidated financial statements, the Company's goodwill balance as of December 31, 2022 December 31, 2023 was $70.6 million $35.7 million, including $57.3 million $22.4 million related to the Surface Protection reporting unit. unit, within the PE Films reportable segment. The Company assesses goodwill for impairment when events or circumstances indicate that the carrying value may not be recoverable, or, at a minimum, on an annual basis (December 1st of each year). During the three months ended September 30, 2022 June 30, 2023 and September 30, 2023, events and circumstances indicated that the Surface Protection reporting unit might be impaired. The Company performed a quantitative impairment test tests of the Surface Protection reporting unit as of September 30, 2022 June 30, 2023 and September 30, 2023, and concluded that no an impairment existed. existed as of June 30, 2023 and September 30, 2023. Management estimated the fair value of the Surface Protection reporting unit based on a weighted average enterprise value utilizing the discounted cash flow and market multiple methods.

method.

We identified the assessment of goodwill impairment in of the Surface Protection reporting unit as a critical audit matter. The estimation of fair value of the reporting unit is complex and includes estimation uncertainties that required a higher level of subjective auditor judgment. Specifically, the discount rate and the revenue growth projections used in the discounted cash flow method required subjective and challenging auditor judgment as they represented subjective determinations of current and future market and economic conditions. Additionally, the audit effort associated with the discount rate and the revenue growth projections required specialized skills and knowledge. Changes to those assumptions could have had a significant effect on the Company's estimate of the fair value of the reporting unit.

The following are the primary procedures we performed to address this critical audit matter. We performed sensitivity analyses evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's goodwill impairment assessment process, including controls over the Company's selection of the discount rate and development of the revenue growth projections. We assessed the revenue growth projections to assess their impact on by considering correspondence with customers, as well as the determination of the fair value of the Surface Protection reporting unit. We compared the revenue growth projections used in the discounted cash flow model to underlying business strategies and growth plans of the Company. We also evaluated the revenue growth projections by comparing them to third-party market data and to historical actual results. In addition, we involved valuation professionals with specialized skills and knowledge, who assisted in:

● • evaluating the Company's discount rate by comparing it to a discount rate that was independently developed using publicly available third-party market data for comparable entities

● • evaluating the Company's revenue growth projections by comparing them to projections that were independently developed using external market and industry data.

/s/ KPMG LLP

We have served as the Company's auditor since 2018.

Richmond, Virginia

March 16, 2023 15, 2024

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Tredegar Corporation:

Opinion on Internal Control Over Financial Reporting

We have audited Tredegar Corporation and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2022 December 31, 2023, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, because of the effect of the material weaknesses, described below, on the achievement of the objectives of the control criteria, the Company has not maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022 December 31, 2023, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2022 December 31, 2023 and 2021, 2022, the related consolidated statements of income (loss), comprehensive income (loss), cash flows, and shareholders' equity for each of the years in the three-year period ended December 31, 2022 December 31, 2023, and the related notes (collectively, the consolidated financial statements), and our report dated March 16, 2023 March 15, 2024 expressed an unqualified opinion on those consolidated financial statements.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. The material weaknesses related to the Company not sufficiently attracting, developing, and retaining competent resources to fulfill internal control responsibilities and not having an effective information and communication process that identified and assessed the source of and controls necessary to ensure the reliability of information used in financial reporting. As a consequence, the Company did not effectively design, implement and operate process-level controls across its financial reporting processes. The material weaknesses have been identified and included in management's assessment. The material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2022 consolidated financial statements, and this report does not affect our report on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

Richmond, Virginia
March 16, 2023 15, 2024

CONSOLIDATED BALANCE SHEETS
Tredegar Corporation and Subsidiaries

		December 31	
		2022	2021
December 31			**December 31**
2023			**2023** 2022
(In thousands, except share data)	(In thousands, except share data)		
Assets	**Assets**		
Assets			
Assets			
Assets			
Assets			
Assets			
Assets			
Assets			
Assets			
Current assets:			
Current assets:			
Current assets:	Current assets:		
Cash and cash equivalents	Cash and cash equivalents	**$ 19,232**	$ 30,521
Cash and cash equivalents			
Cash and cash equivalents			
Restricted cash			
Accounts and other receivables, net	Accounts and other receivables, net	**84,544**	103,312
Income taxes recoverable	Income taxes recoverable	**733**	2,558
Inventories	Inventories	**127,771**	88,569
Prepaid expenses and other	Prepaid expenses and other	**10,304**	11,275
Current assets of discontinued operations		**—**	178
Total current assets			
Total current assets			
Total current assets	Total current assets	**242,584**	236,413
Property, plant and equipment, at cost:	Property, plant and equipment, at cost:		
Land and land improvements			
Land and land improvements			
Land and land improvements	Land and land improvements	**4,832**	4,537
Buildings	Buildings	**71,129**	69,406
Machinery and equipment	Machinery and equipment	**455,960**	424,368
Total property, plant and equipment	Total property, plant and equipment	**531,921**	498,311
Less accumulated depreciation		**(345,510)**	(327,930)

Less: accumulated depreciation			
Net property, plant and equipment	Net property, plant and equipment	**186,411**	170,381
Right-of-use leased assets	Right-of-use leased assets	**14,021**	13,847
Identifiable intangible assets, net	Identifiable intangible assets, net	**11,690**	14,152
Goodwill	Goodwill	**70,608**	70,608
Deferred income tax assets	Deferred income tax assets	**13,900**	15,723
Other assets	Other assets	**2,879**	2,460
Total assets	Total assets	**$542,093**	$523,584
Liabilities and Shareholders' Equity	**Liabilities and Shareholders' Equity**		
Current liabilities:	Current liabilities:		
Current liabilities:			
Current liabilities:			
Accounts payable			
Accounts payable			
Accounts payable	Accounts payable	**$114,938**	$123,760
Accrued expenses	Accrued expenses	**31,603**	33,104
Lease liability, short-term	Lease liability, short-term	**2,035**	2,158
ABL revolving facility (matures on June 30, 2026)			
Income taxes payable	Income taxes payable	**1,137**	9,333
Current liabilities of discontinued operations		**—**	193
Total current liabilities			
Total current liabilities			
Total current liabilities	Total current liabilities	**149,713**	168,548
Lease liability, long-term	Lease liability, long-term	**12,738**	12,831
Long-term debt	Long-term debt	**137,000**	73,000
Pension and other postretirement benefit obligations, net	Pension and other postretirement benefit obligations, net	**35,046**	78,265
Other non-current liabilities	Other non-current liabilities	**5,834**	6,218
Other non-current liabilities			
Other non-current liabilities			
Total liabilities	Total liabilities	**340,331**	338,862
Contingencies (Note 18)			

Contingencies (Note 16)	Contingencies (Note 16)		
Shareholders' equity:	**Shareholders' equity:**		
Common stock (no par value):			
Authorized 150,000,000 shares;			
Issued and outstanding—34,000,642 shares in 2022 and 33,736,629 in 2021 (including restricted stock)		**58,824**	55,174
Common stock held in trust for savings restoration plan (113,316 shares in 2022 and 108,433 in 2021)		**(2,188)**	(2,135)
Common stock, no par value (authorized 150,000,000 shares, issued and outstanding— 34,408,638 shares at December 31, 2023 and 34,000,642 at December 31, 2022)			
Common stock, no par value (authorized 150,000,000 shares, issued and outstanding— 34,408,638 shares at December 31, 2023 and 34,000,642 at December 31, 2022)			
Common stock, no par value (authorized 150,000,000 shares, issued and outstanding— 34,408,638 shares at December 31, 2023 and 34,000,642 at December 31, 2022)			
Common stock held in trust for savings restoration plan (118,543 shares at December 31, 2023 and 113,316 at December 31, 2022)			
Accumulated other comprehensive income (loss):	Accumulated other comprehensive income (loss):		
Foreign currency translation adjustment			
Foreign currency translation adjustment			
Foreign currency translation adjustment	Foreign currency translation adjustment	**(86,079)**	(85,792)
Gain (loss) on derivative financial instruments	Gain (loss) on derivative financial instruments	**(2,480)**	901
Pension and other postretirement benefit adjustments	Pension and other postretirement benefit adjustments	**(59,036)**	(64,613)
Retained earnings	Retained earnings	**292,721**	281,187
Total shareholders' equity	Total shareholders' equity	**201,762**	184,722

Total liabilities and shareholders' equity	Total liabilities and shareholders' equity	**$542,093**	$523,584

See accompanying notes to financial statements.

CONSOLIDATED STATEMENTS OF INCOME (LOSS)

Tredegar Corporation and Subsidiaries

		Years Ended December 31		
		2022	2021	2020
(In thousands, except per-share data)				
Years Ended December 31				Years Ended December 31
2023		**2023**	2022	2021
(In thousands, except share data)				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:				
Revenues and other:	**Revenues and other:**			
Sales	Sales	**$938,564**	$826,455	$755,290
Sales				
Sales				
Other income (expense), net	Other income (expense), net	**935**	20,376	(67,294)
		939,499	846,831	687,996
	702,678			
Costs and expenses:	**Costs and expenses:**			
Cost of goods sold				
Cost of goods sold				
Cost of goods sold	Cost of goods sold	**764,042**	649,690	558,967
Freight	Freight	**34,982**	28,232	25,686
Selling, general and administrative	Selling, general and administrative	**78,790**	74,964	84,246
Research and development	Research and development	**6,214**	6,347	8,398

Amortization of identifiable intangibles	Amortization of identifiable intangibles	**2,520**	1,704	3,017
Pension and postretirement benefits	Pension and postretirement benefits	**14,569**	14,160	14,720
Interest expense	Interest expense	**4,990**	3,386	2,587
Asset impairments and costs associated with exit and disposal activities, net of adjustments	Asset impairments and costs associated with exit and disposal activities, net of adjustments	**622**	1,127	1,725
Pension settlement loss				
Goodwill impairment	Goodwill impairment	**—**	—	13,696
Total	Total	**906,729**	779,610	713,042
Income (loss) from continuing operations before income taxes		**32,770**	67,221	(25,046)
Income (loss) before income taxes				
Income tax expense (benefit)	Income tax expense (benefit)	**4,389**	9,284	(8,213)
Net income (loss) from continuing operations		**28,381**	57,937	(16,833)
Income (loss) from discontinued operations, net of tax		**74**	(111)	(58,611)
Net income (loss)				
Net income (loss)				
Net income (loss)	**Net income (loss)**	**$ 28,455**	$ 57,826	$ (75,444)
Earnings (loss) per share:	**Earnings (loss) per share:**			
Basic:				
Continuing operations		**$ 0.84**	$ 1.72	$ (0.51)
Discontinued operations		**—**	—	(1.75)
Basic earnings (loss) per share		**$ 0.84**	$ 1.72	$ (2.26)
Diluted:				
Continuing operations		**$ 0.84**	$ 1.72	$ (0.51)
Discontinued operations		**—**	—	(1.75)
Diluted earnings (loss) per share		**$ 0.84**	$ 1.72	$ (2.26)
Earnings (loss) per share:				
Earnings (loss) per share:				
Basic				
Basic				
Basic				

Diluted								
Diluted								
Diluted								
Shares used to compute earnings (loss) per share:								
Shares used to compute earnings (loss) per share:								
Shares used to compute earnings (loss) per share:	**Shares used to compute earnings (loss) per share:**							
Basic	Basic	**33,806**	33,563	33,402				
Basic								
Basic						**34,133**	33,806	33,563
Diluted	Diluted	**33,826**	33,670	33,402	Diluted	**34,133**	33,826	33,670

See accompanying notes to financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

Tredegar Corporation and Subsidiaries

		Years Ended December 31					
		2022	2021	2020			
Years Ended December 31					Years Ended December 31		
2023					**2023**	2022	2021
(In thousands)	(In thousands)						
Net income (loss)	**Net income (loss)**	**$28,455**	$57,826	$(75,444)			
Net income (loss)							
Net income (loss)							
Net income (loss)							
Net income (loss)							
Net income (loss)							
Net income (loss)							
Net income (loss)							
Net income (loss)							
Net income (loss)							
Net income (loss)							
Net income (loss)							
Net income (loss)							
Net income (loss)							
Net income (loss)							
Other comprehensive income (loss):	**Other comprehensive income (loss):**						
Unrealized foreign currency translation adjustment (net of tax expense of $290 in 2022, net of tax benefit of $365 in 2021 and net of tax benefit of $897 in 2020)		**(287)**	(1,643)	(8,781)			
Reclassification of foreign currency translation loss realized on the sale of Personal Care Films		**—**	—	25,295			

Derivative financial instruments adjustment (net of tax benefit of $336 in 2022, net of tax benefit of $351 in 2021 and net of tax expense of $790 in 2020)	**(3,381)**	(1,363)	3,571
Unrealized foreign currency translation adjustment (net of tax expense of $469 in 2023, net of tax expense of $290 in 2022 and net of tax benefit of $365 in 2021)			
Unrealized foreign currency translation adjustment (net of tax expense of $469 in 2023, net of tax expense of $290 in 2022 and net of tax benefit of $365 in 2021)			
Unrealized foreign currency translation adjustment (net of tax expense of $469 in 2023, net of tax expense of $290 in 2022 and net of tax benefit of $365 in 2021)			
Derivative financial instruments adjustment (net of tax expense of $933 in 2023, net of tax benefit of $336 in 2022 and net of tax benefit of $351 in 2021)			
Pension & other postretirement benefit adjustments: Pension & other postretirement benefit adjustments:			
Net gains (losses) and prior service costs (net of tax benefit of $1,400 in 2022, net of tax expense of $5,212 in 2021 and net of tax benefit of $4,228 in 2020)	**(5,064)**	18,720	(12,197)
Amortization of prior service costs and net gains or losses (net of tax expense of $2,965 in 2022, net of tax expense of $3,676 in 2021 and net of tax expense of $3,937 in 2020)	**10,641**	13,186	11,359
Recognition in earnings of actuarial loss for pension settlement (net of tax expense of $41,294)			
Recognition in earnings of actuarial loss for pension settlement (net of tax expense of $41,294)			
Recognition in earnings of actuarial loss for pension settlement (net of tax expense of $41,294)			

Net gains (losses) and prior service costs (net of tax expense of $422 in 2023, net of tax benefit of $1,400 in 2022 and net of tax expense of $5,212 in 2021)				
Amortization of prior service costs and net gains or losses (net of tax expense of $1,968 in 2023, net of tax expense of $2,965 in 2022 and net of tax expense of $3,676 in 2021)				
Other comprehensive income (loss)	Other comprehensive income (loss)	**1,909**	28,900	19,247
Comprehensive income (loss)	**Comprehensive income (loss)**	**$30,364**	$86,726	$(56,197)

See accompanying notes to financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Tredegar Corporation and Subsidiaries

		Years Ended December 31		
		2022	2021	2020
		(In thousands)		
	Years Ended December 31			Years Ended December 31
	2023			**2023** 2022 2021
(In thousands)				(In thousands)
Cash flows from operating activities:	**Cash flows from operating activities:**			
Net income (loss)	Net income (loss)	**$ 28,455**	$ 57,826	$(75,444)
Net income (loss)				
Net income (loss)				
Adjustments for noncash items:	Adjustments for noncash items:			
Depreciation				
Depreciation				
Depreciation	Depreciation	**23,882**	22,080	28,940
Amortization of identifiable intangibles	Amortization of identifiable intangibles	**2,520**	1,704	3,017

Goodwill impairment	Goodwill impairment	**—**	—	13,696
Reduction of right-of-use lease asset	Reduction of right-of-use lease asset	**2,098**	2,086	2,753
Deferred income taxes	Deferred income taxes	**544**	(4,944)	(16,892)
Accrued pension and postretirement benefits	Accrued pension and postretirement benefits	**14,602**	14,160	14,720
Pension settlement loss				
Stock-based compensation expense	Stock-based compensation expense	**3,619**	5,167	5,402
(Gain) loss on investment in kaléo		**(1,406)**	(12,462)	60,900
Loss on sale of divested businesses		**—**	—	52,326
Gain on investment in kaléo				
Impairment of Richmond, Virginia Technical Center assets				
Changes in assets and liabilities:	Changes in assets and liabilities:			
Accounts and other receivables				
Accounts and other receivables				
Accounts and other receivables	Accounts and other receivables	**18,569**	(16,993)	(335)
Inventories	Inventories	**(37,771)**	(23,132)	(4,366)
Income taxes recoverable/payable	Income taxes recoverable/payable	**(6,423)**	8,956	1,617
Prepaid expenses and other	Prepaid expenses and other	**(2,526)**	3,612	(2,203)
Accounts payable and accrued expenses	Accounts payable and accrued expenses	**(14,916)**	19,835	4,045
Lease liability	Lease liability	**(2,301)**	(1,935)	(3,049)
Pension and postretirement benefit plan contributions	Pension and postretirement benefit plan contributions	**(50,660)**	(5,687)	(12,681)
Other, net	Other, net	**870**	310	1,927
Net cash (used in) provided by operating activities		**(20,844)**	70,583	74,373
Net cash provided by (used in) operating activities				
Cash flows from investing activities:	**Cash flows from investing activities:**			
Capital expenditures	Capital expenditures	**(36,875)**	(27,361)	(23,355)
Capital expenditures				
Capital expenditures				
Proceeds from the sale of kaléo	Proceeds from the sale of kaléo	**1,406**	47,062	—
Net proceeds on sale of divested businesses		**—**	—	56,236

Proceeds from the sale of assets and other	Proceeds from the sale of assets and other	**10**	4,749	—
Net cash (used in) provided by investing activities		**(35,459)**	24,450	32,881
Proceeds from the sale of assets and other				
Proceeds from the sale of assets and other				
Net cash provided by (used in) investing activities				
Cash flows from financing activities:	**Cash flows from financing activities:**			
Borrowings				
Borrowings				
Borrowings	Borrowings	**313,500**	75,500	162,250
Debt principal payments	Debt principal payments	**(249,500)**	(136,500)	(70,250)
Dividends paid	Dividends paid	**(16,974)**	(16,167)	(216,049)
Debt financing costs	Debt financing costs	**(1,245)**	—	(693)
Other	Other	**(396)**	325	(850)
Net cash provided by (used in) financing activities:	Net cash provided by (used in) financing activities:	**45,385**	(76,842)	(125,592)
Effect of exchange rate changes on cash	**Effect of exchange rate changes on cash**	**(371)**	484	(1,238)
(Decrease) increase in cash and cash equivalents		**(11,289)**	18,675	(19,576)
Cash and cash equivalents at beginning of period		**30,521**	11,846	31,422
Cash and cash equivalents at end of period		**$ 19,232**	$ 30,521	$ 11,846
Increase (decrease) in cash, cash equivalents and restricted cash				
Cash, cash equivalents and restricted cash at beginning of period				
Cash, cash equivalents and restricted cash at end of period				
Supplemental cash flow information:	Supplemental cash flow information:			
Interest payments	Interest payments	**$ 4,423**	$ 2,923	$ 1,679
Interest payments				
Interest payments				
Income tax payments, net	Income tax payments, net	**$ 10,814**	$ 4,706	$ 1,670

See accompanying notes to financial statements.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

Tredegar Corporation and Subsidiaries

(In thousands, except share and per-share data)	(In thousands, except share and per-share data)	Common Stock: Shares	Common Stock: Amount	Retained Earnings	Trust for Savings Restoration Plan	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity	Common Stock	Retained Earnings	Trust for Savings Restoration Plan	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
Balance at January 1, 2020		33,365,039	$45,514	$530,478	$ (1,592)	$ (197,651)	$ 376,749					
Net income (loss)		—	—	(75,444)	—	—	(75,444)					

Foreign currency translation adjustment		—	—	—	—	(8,781)	(8,781)
Foreign currency translation loss realized on the sale of Personal Care Films		—	—	—	—	25,295	25,295
Derivative financial instruments adjustment		—	—	—	—	3,571	3,571
Net gains or (losses) and prior service costs		—	—	—	—	(12,197)	(12,197)
Amortization of prior service costs and net gains or losses		—	—	—	—	11,359	11,359
Cash dividends declared ($6.45 per share)		—	—	(216,049)	—	—	(216,049)
Stock-based compensation expense		131,354	5,402	—	—	—	5,402
Repurchase of employee common stock for tax withholdings		(39,217)	(850)	—	—	—	(850)
Tredegar common stock purchased by trust for savings restoration plan		—	—	495	(495)	—	—
Balance at December 31, 2020		33,457,176	50,066	239,480	(2,087)	(178,404)	109,055
Balance at January 1, 2021							
Balance at January 1, 2021							
Balance at January 1, 2021							
Net income (loss)	Net income (loss)	—	—	57,826	—	—	57,826
Foreign currency translation adjustment	Foreign currency translation adjustment	—	—	—	—	(1,643)	(1,643)
Derivative financial instruments adjustment	Derivative financial instruments adjustment	—	—	—	—	(1,363)	(1,363)
Net gains or (losses) and prior service costs	Net gains or (losses) and prior service costs	—	—	—	—	18,720	18,720
Amortization of prior service costs and net gains or losses	Amortization of prior service costs and net gains or losses	—	—	—	—	13,186	13,186
Cash dividends declared ($0.48 per share)	Cash dividends declared ($0.48 per share)	—	—	(16,167)	—	—	(16,167)
Stock-based compensation expense	Stock-based compensation expense	229,014	4,783	—	—	—	4,783

Repurchase of employee common stock for tax withholdings	Repurchase of employee common stock for tax withholdings	(17,266)	(590)	—	—	—	(590)
Issued upon exercise of stock options	Issued upon exercise of stock options	67,705	915	—	—	—	915
Tredegar common stock purchased by trust for savings restoration plan	Tredegar common stock purchased by trust for savings restoration plan	—	—	48	(48)	—	—
Balance at December 31, 2021	Balance at December 31, 2021	33,736,629	55,174	281,187	(2,135)	(149,504)	184,722
Net income (loss)	Net income (loss)	**—**	**—**	**28,455**	**—**	**—**	**28,455**
Foreign currency translation adjustment	Foreign currency translation adjustment	**—**	**—**	**—**	**—**	**(287)**	**(287)**
Derivative financial instruments adjustment	Derivative financial instruments adjustment	**—**	**—**	**—**	**—**	**(3,381)**	**(3,381)**
Net gains or (losses) and prior service costs	Net gains or (losses) and prior service costs	**—**	**—**	**—**	**—**	**(5,064)**	**(5,064)**
Amortization of prior service costs and net gains or losses	Amortization of prior service costs and net gains or losses	**—**	**—**	**—**	**—**	**10,641**	**10,641**
Cash dividends declared ($0.50 per share)	Cash dividends declared ($0.50 per share)	**—**	**—**	**(16,974)**	**—**	**—**	**(16,974)**
Stock-based compensation expense	Stock-based compensation expense	**294,764**	**4,046**	**—**	**—**	**—**	**4,046**
Repurchase of employee common stock for tax withholdings							
Tredegar common stock purchased by trust for savings restoration plan							
Tredegar common stock purchased by trust for savings restoration plan							

Tredegar common stock purchased by trust for savings restoration plan							
Balance at December 31, 2022							
Net income (loss)							
Foreign currency translation adjustment							
Derivative financial instruments adjustment							
Net gains or (losses) and prior service costs							
Amortization of prior service costs and net gains or losses							
Recognition in earnings of net actuarial loss for pension settlement							
Cash dividends declared ($0.26 per share)							
Stock-based compensation expense							
Repurchase of employee common stock for tax withholdings	Repurchase of employee common stock for tax withholdings	**(30,751)**	**(396)**	**—**	**—**	**—**	**(396)**
Repurchase of employee common stock for tax withholdings							
Repurchase of employee common stock for tax withholdings							
Tredegar common stock purchased by trust for savings restoration plan	Tredegar common stock purchased by trust for savings restoration plan	**—**	**—**	**53**	**(53)**	**—**	**—**

Balance at December 31, 2022	**34,000,642**	**$58,824**	**$292,721**	**$**	**(2,188)**	**$ (147,595)**	**$**	**201,762**
Balance at December 31, 2023								

See accompanying notes to financial statements.

NOTES TO FINANCIAL STATEMENTS
Tredegar Corporation and Subsidiaries

1. NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations. Tredegar Corporation and subsidiaries (collectively "Tredegar," "the Company," "we," "us" or "our") is an industrial manufacturer with three primary businesses: custom aluminum extrusions for the North American building & construction, automotive and specialty end-use markets; surface protection films for high-technology applications in the global electronics industry and polyethylene overwrap films used in for bathroom tissue and paper towels; and polyester-based films for use in packaging applications that have specialized properties primarily for the Latin American and the United States ("U.S.") flexible packaging markets. The Company's business segments are Aluminum Extrusions (also referred to as Bonnell Aluminum), PE Films, and Flexible Packaging Films (also referred to as Terphane). More information on the Company's business segments is provided in Note 13.

On October 30, 2020 September 1, 2023, the Company completed announced that it had entered into a definitive agreement to sell Terphane to Oben Group (the "Contingent Terphane Sale"). Completion of the sale is contingent upon the satisfaction of its personal care films business ("Personal Care Films") customary closing conditions, including the receipt of certain competition filing approvals by authorities in Brazil and Colombia. On October 27, 2023, which was part of its PE Films segment. The transaction excluded the packaging film lines and related operations located at Company filed the Pottsville, Pennsylvania manufacturing site ("Pottsville Packaging"), which are now being reported requisite competition forms with the Surface Protection component of PE Films. Commencing Administrative Council for Economic Defense ("CADE") in Brazil. The regulatory review process is ongoing and in line with the third quarter of 2020, all historical results Company's expectations. CADE's maximum deadline for Personal Care Films have been presented as discontinued operations.

For more information on this completing its review is no later than November 18, 2024. The merger review regarding the transaction see Note 15. was cleared by the Colombian authority in early February 2024.

Basis of Presentation and Principles of Consolidation. The consolidated financial statements include the accounts and operations of the Company and have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP"). Intercompany balances and transactions have been eliminated in consolidation. Certain amounts for the prior years have been reclassified to conform to current year presentation.

Fiscal Year End. The Company operates on a calendar fiscal year except for the Aluminum Extrusions segment, which operates on a 52/53-week fiscal year basis. References to Aluminum Extrusions for 2023, 2022 2021 and 2020 2021 relate to the 53-week fiscal years ended December 31, 2023 and 52-week fiscal years ended December 25, 2022, and December 26, 2021 and December 27, 2020, respectively. The Company does not believe the impact of reporting the results of this segment in this manner is material to the consolidated financial results. The Company may fund or receive cash from the Aluminum Extrusions segment based on Aluminum Extrusion's cash flows from operations during the intervening period from Aluminum Extrusion's fiscal year end to the Company's calendar year end. There was no intercompany funding with Aluminum Extrusions between December 25, 2022 and December 31, 2022 nor between December 27, 2021 and December 31, 2021.

Use of Estimates. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses and disclosure of contingent assets and liabilities (if any). On an ongoing basis, the Company evaluates its estimates, including those related to provisions for transaction and credit losses, income taxes, pension, and the valuation of goodwill and intangible assets, among others. Tredegar bases its estimates on historical experience and various other assumptions which the Company believes to be reasonable under the circumstances. Actual results could differ from those estimates.

Foreign Currency Translation. The financial statements of subsidiaries located outside the U.S., where the local currency is the functional currency, are translated into U.S. Dollars using exchange rates in effect at the period end for assets and liabilities and average exchange rates during each reporting period for results of operations. Adjustments resulting from the translation of these financial statements are reflected as a separate component of shareholders' equity. There are no operating subsidiaries located outside the U.S. where the U.S. Dollar is the functional currency. Transaction and remeasurement gains or losses included in income were losses gains of $0.4 million $0.2 million, losses of $0.4 million and losses of $0.5 million in 2023, 2022 and gains of $0.6 million in 2022, 2021, and 2020, respectively. These amounts do not include the effects between reporting periods that exchange rate changes have on income of the locations outside the U.S. that result from translation into U.S. Dollars.

Cash, Cash Equivalents and Cash Equivalents. Restricted cash. Cash, and cash equivalents and restricted cash consist of cash on hand in excess of daily operating requirements and highly liquid investments with original maturities of three months or less. At December 31, 2022 December 31, 2023 and 2021, 2022, Tredegar had cash, and cash equivalents and restricted cash of $19.2 $13.5 million and $30.5 $19.2 million, respectively, including funds held in locations outside the U.S. of $10.3 million $9.8 million and $16.4 million $10.3 million, respectively.

The Company's policy permits investment of excess cash in marketable securities that have the highest credit ratings and maturities of less than one year. The primary objectives of the policy are safety of principal and liquidity.

The following table provides a reconciliation of cash, cash equivalents and restricted cash to amounts shown in the consolidated statements of cash flows:

(In thousands)		December 31, 2023		December 31, 2022
Cash and cash equivalents	**$**	**9,660**	$	19,232
Restricted cash		**3,795**		—

Total cash, cash equivalents and restricted cash	$	13,455	$	19,232

Restricted cash as of December 31, 2023 consists of $3.4 million of receipts that have not yet been applied to the ABL Facility (defined below). See Note 7 for additional information.

Accounts and Other Receivables, net. Accounts receivable receivables are stated at the amount invoiced to customers less allowances for doubtful accounts. Accounts receivable receivables are non-interest bearing and arise from the sale of product products to customers under typical industry trade terms. Notes receivable receivables are immaterial. Past due amounts are determined based on established terms and charged-off when deemed uncollectible. The allowance for doubtful accounts is determined based on an assessment of probable losses taking into account past due amounts, customer credit profile, historical experience and current economic conditions. For

receivables that do not have a specific allowance, the loss rate is computed by segment to apply to the remaining receivables balance, using each segment's historic loss rate. Other receivables include value-added taxes related to certain foreign subsidiaries and other miscellaneous receivables due within one year. For certain customers, the Company has arrangements in place with financial institutions whereby certain customer receivables are sold to the financial institution at a discount and without recourse. Upon sale, the associated receivable is unrecognized, and the discount is recognized. For more information on accounts receivable and other receivables, net, see Note 2.

Inventories. Inventories are stated at the lower of cost or market, with cost determined using the last in, first out ("LIFO") method, the weighted average cost or the first in, first out ("FIFO") method. Cost elements included in work-in-process and finished goods inventories are raw materials, direct labor and manufacturing overhead. Finished goods, work-in-process, raw materials and supplies, stores and other inventory are reviewed to determine if inventory quantities are in excess of forecasted usage or if they have become obsolete.

Property, Plant and Equipment. Accounts include costs of assets constructed or purchased, related delivery and installation costs and interest incurred on significant capital projects during their construction periods. Expenditures for renewals and betterments also are capitalized, but expenditures for repairs and maintenance are expensed as incurred. The cost and accumulated depreciation applicable to assets retired or sold are removed from the respective accounts, and gains or losses thereon are included in income. Capital expenditures for property, plant and equipment include capitalized interest. Capitalized interest included in capital expenditures for property, plant and equipment was immaterial. Depreciation is computed primarily by the straight-line method based on the estimated useful lives of the assets that generally range from 5 to 40 years for buildings and land improvements and 2 to 20 years for machinery and equipment.

Goodwill and Identifiable Intangibles. The excess of the purchase price over the fair value of identifiable net assets of acquired companies is allocated to goodwill. The Company assesses goodwill for impairment when events or circumstances indicate that the carrying value may not be recoverable, or, at a minimum, on an annual basis (December 1st of each year). When assessing goodwill for impairment, accounting guidance allows the Company to first perform a qualitative assessment ("Step 0 analysis"), which evaluates certain qualitative factors, including macroeconomic conditions, industry and market considerations, cost factors and overall financial performance, as well as company and reporting unit factors. If the Company's Step 0 analysis indicates that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then the Company would perform a quantitative impairment test ("Step 1 analysis").

During 2023, uncertainty about the three months ended September 30, 2022, events timing of a recovery in the consumer electronics market persisted, and circumstances indicated that the Surface Protection reporting unit ("Surface Protection"), which is also the asset group, might be impaired. The Company performed a Step 1 analysis and long-lived impairment analysis for Surface Protection and determined that the fair value of Surface Protection exceeded its carrying value by 18.6%. Customer demand for electronics has continued to deteriorate since the third quarter of 2022, causing manufacturers in the supply chain for consumer electronics continued to experience reduced capacity utilization and inventory corrections. In addition, these depressed market conditions, which are light of the limited visibility on the timing of a recovery and the expected adverse future impact to continue through the first half Surface Protection business, coupled with a cautious outlook on new product development opportunities, the Company performed a Step 1 goodwill impairment analysis, as of 2023, are adversely impacting mix through reduced sales to our highest value-added customers June 30, 2023 and products. Given September 30, 2023, of the uncertain demand for Surface Protections products, it is reasonably possible Protection component of PE Films. The analyses concluded that the fair value of Surface Protection was less than its carrying value, thus a non-cash partial goodwill impairment of $34.9 million ($27.0 million after deferred income tax benefits) was recognized during 2023.

The Company estimated the fair value of Surface Protection by: (i) computing an estimated enterprise value ("EV") utilizing the discounted cash flow estimates method (the "DCF Method"), (ii) applying adjustments for any surplus or deficient working capital, (iii) adding cash and cash equivalents, and (iv) subtracting interest-bearing debt. The DCF Method was used, in deriving such fair value measurements may change in the future. incorporating Surface Protection's latest projections, which reflect updated expected market recovery levels, feasibility of launching new product applications, competitive pricing and cash flows associated with production efficiencies, as well as consideration of cost savings and inventory corrections.

As of December 1, 2022 December 1, 2023, the Company's reporting units with goodwill were Surface Protection in PE Films and Futura in Aluminum Extrusions. Both of these reporting units have separately identifiable operating net assets (operating assets including goodwill and identifiable intangible assets net of operating liabilities). The Company's Step 0 analyses as of December 1, 2022 analysis of these reporting units concluded that it is not more likely than not that the fair values value of each reporting unit was less greater than its carrying amount. value. Therefore, the Step 1 quantitative goodwill impairment tests for these reporting units were not necessary as of December 1, 2022.

As of December 31, 2022, necessary. The Surface Protection and Futura reporting units had goodwill in the amounts of $57.3 million $22.4 million and long-lived identifiable assets of $29.3 million.

During the first three months of 2020, the Company performed goodwill impairment tests and recognized a goodwill impairment charge of $13.7 $13.3 million, ($10.5 million after taxes), which represented the entire amount of goodwill associated with Aluminum Extrusions' AACOA reporting unit. The operations of the AACOA reporting unit, which includes the Niles, Michigan and Elkhart, Indiana facilities, were expected to be severely impacted by COVID-19, with over 80% of the aluminum extrusions manufactured respectively, at these facilities sold to customers that make consumer durable products, such as recreational boating and power sports vehicles, and to customers serving the building and construction and automotive markets. December 31, 2023.

For more information on goodwill and identifiable intangibles, see Note 5.

Impairment of Long-Lived Assets. The Company reviews long-lived assets for possible impairment when events indicate that an impairment may exist. For assets that are held and used in operations, if events indicate that an asset may be impaired, the Company estimates the future unlevered pre-tax cash flows expected to result from the use of the asset and its eventual disposition. Assets are grouped for this purpose at the lowest level for which there are identifiable and independent cash flows.

If the sum of these undiscounted pre-tax cash flows is less than the carrying amount of the asset group, an impairment loss is calculated. Measurement of the impairment loss is the amount by which the carrying amount exceeds the estimated fair value of the asset group. As of December 31, 2022 and 2021, no events were identified that indicated long-lived assets may be impaired.

Assets that are held for sale are reported at the lower of their carrying amount or estimated fair value less cost to sell, with an impairment loss recognized for any write-down required.

As of December 31, 2023 and 2022, no events, other than the Richmond Technical Center assets that went held for sale in the third quarter of 2023, were identified that indicated long-lived assets may be impaired.

Pension Costs and Postretirement Benefit Costs Other than Pensions. Pension costs and postretirement benefit costs other than pensions have been accrued over the period employees provided service to Tredegar. Liabilities and expenses for pension plans and other postretirement benefits are determined using actuarial methodologies and incorporate significant assumptions, including the rate used to discount the future estimated liability, the long-term rate of return on plan assets, and several assumptions relating to the employee workforce. The Company recognizes the funded status of its pension and other postretirement plans in the accompanying consolidated balance sheets. Tredegar's policy is has been to fund its pension plans at amounts not less than the minimum requirements of the Employee Retirement Income Security Act ("ERISA") of 1974 and to fund postretirement benefits other than pensions when claims are incurred.

On February 10, 2022, In February 2022, Tredegar announced the initiation of a process to terminate and settle its frozen defined benefit pension plan which could take up to 24 months to complete. In connection therewith, on February 9, 2022, through lump sum distributions and the Company contributed $50 million to purchase of annuity contracts. On November 3, 2023, the pension plan (the "Special Contribution"). As a result, termination and settlement process for the Company expects there will be no required minimum contributions to the pension plan until final settlement. As the settlement process occurs, the Company expects to recognize a non-cash reclassification adjustment to net income or loss of other comprehensive net actuarial losses associated with the pension plan currently reflected directly in shareholders' equity. Other comprehensive net actuarial losses associated with the pension plan were approximately $104 million on a pre-tax basis as of December 31, 2022.

Additional disclosure regarding Tredegar's pension costs and postretirement benefit costs other than pensions is included in was completed. For more information, see Note 8.

Revenue Recognition. The Company's revenue is primarily generated from the sale of finished products to customers. Those sales predominantly contain a single performance obligation and revenue is recognized at the point in time when control of the product is transferred to customers, along with the title, risk of loss and rewards of ownership. Depending on the arrangement with the customer, these criteria are met either at the time the product is shipped or when the product is made available or delivered at to the destination specified in the agreement with the customer.

Sales revenue is recognized in an amount that reflects the consideration the Company expects to be entitled to in exchange for that finished product. The Company offers various discounts, rebates and allowances to customers, (collectively, "allowances"), all of which are considered when determining the transaction price. Certain allowances are fixed and determinable at the time of sale and are recorded at the time of sale as a reduction to revenues. Other allowances can vary depending on future outcomes such as sales returns and customer sales volume, thus represents representing variable consideration.

Amounts billed to customers related to freight are classified as sales revenue and the cost of freight is classified as a separate line in the accompanying consolidated statements of income. Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction between Tredegar and its customers (such as value-added taxes) are accounted for on a net basis and therefore excluded from revenues. See Note 13 for disaggregation of revenue by segment and type. See Note 2 for a table showing accounts and other receivables, net of allowance for bad debts.

Revenue expected to be recognized in any future period related to remaining performance obligations, excluding i) revenue pertaining to contracts that have an original expected duration of one year or less, ii) contracts where revenue is recognized as invoiced and iii) variable consideration related to unsatisfied performance obligations, is not expected to materially impact the Company's financial results.

Research & and Development ("R&D") Costs. R&D costs are expensed as incurred and include primarily salaries, wages, employee benefits, equipment depreciation, facility costs and the cost of materials consumed relating to R&D efforts. R&D costs include a reasonable allocation of indirect costs.

In August 2023, the Company adopted a plan to close the PE Films technical center in Richmond, VA and reduce its efforts to develop and sell films supporting the semiconductor market. Future research and development activities for PE Films will be performed at the facility in Pottsville, PA. PE Films continues to have new business opportunities primarily relating to surface protection films that protect components of flat panel and flexible displays. The Company anticipates all activities to cease at the PE Films technical center in Richmond, VA, by the end of the first quarter of 2024. The Company recognized total expense incurred through December 31, 2023 associated with exit activities of $1.3 million for: (i) severance and related costs ($0.9 million) and (ii) building closure costs ($0.4 million). In addition, the Company recognized a non-cash asset impairment ($3.5 million), accelerated depreciation ($0.3 million) and a gain on the lease modification ($0.1 million).

A reconciliation of the beginning and ending balances of accrued expense associated with exit and disposal activities and charges associated with asset impairments reported as "Asset impairments and costs associated with exit and disposal activities, net of adjustments" in the consolidated statements of income for the year ended December 31, 2023 is shown below.

(In thousands)	Severance	Asset impairment	Other	Total
Balance at January 1, 2023	$ —	$ —	$ —	$ —
Richmond Technical Center	895	3,454	628	4,977
Charges	895	3,454	628	4,977
Cash Spend	510	—	312	822
Charges against assets	—	3,454	188	3,642
Balance at December 31, 2023	$ 385	$ —	$ 128	$ 513

Leases. At inception, the Company determines if an arrangement contains a lease and whether that lease meets the classification criteria of a finance or operating lease. The Company has elected to not record short-term leases with an original lease term of one year or less in the consolidated balance sheet. To the extent such leases contain renewal options that the Company intends to exercise, the related Right-of-Use ("ROU") asset and lease liability are included in the consolidated balance sheet. Some of the Company's lease arrangements contain lease components (e.g., minimum rent payments) and non-lease components (e.g., maintenance, labor charges, etc.). The Company generally accounts for the lease and non-lease components as a single lease component.

Certain of the Company’s lease agreements include rental payments that are adjusted periodically for an index or rate. The leases are initially measured using the projected payments adjusted for the index or rate in effect at the commencement date. The Company’s lease agreements do not contain any material residual value guarantees or material restrictive covenants.

Operating leases are included in “Right-of-use lease assets”, “Lease liabilities - short-term” and “Lease liabilities - long-term” on the consolidated balance sheets. These assets and liabilities are recognized at the commencement date based on the present value of remaining lease payments over the lease term using the Company’s secured incremental borrowing rates, adjusted for term and geographic location using country-based swap rates. As a result of the Company’s review of new and existing lease contracts, there were no instances where the Company could readily determine a rate implicit in the lease.

Lease expense for operating leases is recognized on a straight-line basis over the lease term. Variable lease expense is recognized in the period in which the obligation for those payments is incurred. Depending upon the specific use of the ROU asset, lease expense is included in the “Cost of goods sold”, “Freight”, “Selling, general and administrative”, and “Research and development” line items on the consolidated statements of income. Lease income is not material to the results of operations for the years ended December 31, 2022 December 31, 2023 and 2021, 2022, respectively. Additional disclosure regarding Tredegar’s leases is included in Note 4.

Income Taxes. Income taxes are recognized during the period in which transactions enter into the determination of income for financial reporting purposes, with deferred income taxes being provided at enacted statutory tax rates on the differences between the financial reporting and tax bases of assets and liabilities (see Note 12). Tredegar’s policy is to accrue U.S. federal income taxes to the extent required under GAAP on unremitted earnings of all foreign subsidiaries where required. However, due to changes in the taxation of dividends under the Tax Cuts and Jobs Act (the “TCJA”) enacted by the U.S. government in December 2017, Tredegar only records U.S. federal income taxes on unremitted earnings of its foreign subsidiaries where Tredegar cannot take steps to eliminate any potential tax on future distributions from its foreign subsidiaries. Because of the accumulation of significant losses related to foreign currency translations at Terphane Limitada, there were no unrecorded deferred income tax liabilities associated with U.S. federal income taxes and foreign withholding taxes on Terphane Limitada’s undistributed earnings as of December 31, 2022 December 31, 2023 and December 31, 2021 December 31, 2022.

A valuation allowance is recorded in the period when the Company determines that it is more likely than not that all or a portion of deferred income tax assets may not be realized. The establishment and removal of a valuation allowance requires the Company to consider all positive and negative evidence and make a judgmental decision regarding the amount of valuation allowance required as of a reporting date. The benefit of an uncertain tax position is included in the accompanying financial statements when the Company determines that it is more likely than not that the position will be sustained, based on the technical merits of the position, if the taxing authority examines the position and the dispute is litigated. This determination is made on the basis of all the facts, circumstances and information available as of the reporting date.

Earnings Per Share. Basic earnings per share is computed using the weighted average number of shares of common stock outstanding. Diluted earnings per share is computed using the weighted average common and potentially dilutive common equivalent shares outstanding, determined as follows:

		2022	2021	2020			
2023					**2023**	2022	2021
Weighted average shares outstanding used to compute basic earnings per share	Weighted average shares outstanding used to compute basic earnings per share	**33,805,530**	33,562,684	33,402,147			
Incremental shares attributable to stock options and restricted stock	Incremental shares attributable to stock options and restricted stock	**20,900**	107,566	—			
Shares used to compute diluted earnings per share	Shares used to compute diluted earnings per share	**33,826,430**	33,670,250	33,402,147			

Incremental shares attributable to stock options and restricted stock are computed under the treasury stock method using the average market price during the related period. The Company had a net loss for the year ended December 31, 2023, so there is no dilutive impact for such shares. If the Company had reported net income for the year ended December 31, 2023, average out-of-the-money options to purchase shares that were excluded from the calculation of incremental shares attributable to stock options and restricted stock would have been 2,925,091. The average out-of-the-money options to purchase shares that were excluded from the calculation of incremental shares attributable to stock options and restricted stock were 2,760,983 and 1,582,222 for the year years ended December 31, 2022 and 2021, respectively. The Company had a net loss from continuing operations for the year ended December 31, 2020, so there is no dilutive impact for such shares. If the Company had reported net income from continuing operations for the year ended December 31, 2020, average out-of-the-money options to purchase shares that were excluded from the calculation of incremental shares attributable to stock options and restricted stock were 1,212,375.

Stock-Based Employee Compensation Plans. The cost of all share-based payments is recognized using the calculated fair value at the grant date, or the date of any later modification, over the requisite service period under the graded-vesting method. See Note 11 for additional information.

Financial Instruments. Tredegar uses derivative financial instruments for the purpose of hedging aluminum price volatility and currency exchange rate exposures that exist as part of transactions associated with ongoing business operations. The Company's derivative financial instruments are designated as and qualify as cash flow hedges and are recognized in the accompanying balance sheet at fair value. A change in the fair value of the derivative that is highly effective and that is designated and qualifies as a cash flow hedge is recorded in other comprehensive income. Gains and losses reported in other

comprehensive income (loss) are reclassified to earnings in the periods in which earnings are affected by the variability of cash flows of the hedged transaction. Such gains and losses are reported in the same line as the underlying hedged item, and the cash flows related to financial instruments are classified in the consolidated statements of cash flows in a manner consistent with those of the transactions being hedged.

The Company's policy requires that it formally document all relationships between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. The Company also uses regression analysis, unless the hedge qualifies for other methods of assessing effectiveness, to formally assess (both at the hedge's inception and on an ongoing basis) whether the derivatives that are used in hedging transactions have been highly effective in offsetting changes in the fair value or cash flows of hedged items and whether those derivatives may be expected to remain highly effective in future periods. When it is determined that a derivative is not (or has ceased to be) highly effective as a hedge, the Company discontinues hedge accounting prospectively.

As a policy, Tredegar does not engage in speculative or leveraged transactions, nor does it hold or issue financial instruments for trading purposes. Additional disclosure of the utilization of derivative hedging instruments is included in Note 10.

Comprehensive Income (Loss). Comprehensive income (loss) is defined as net income or loss as adjusted by other comprehensive income or loss items. Other comprehensive income (loss) includes changes in foreign currency translation adjustments, adjustments; unrealized gains and losses on derivative financial instruments, instruments; prior service costs and net gains or losses from pension and other postretirement benefit plans arising during the period period; and amortization of these prior service costs and net gain or loss adjustments, adjustments; and during the period, realized net actuarial loss for pension settlement all recorded net of deferred income taxes.

The changes in accumulated other comprehensive income (loss) by component are summarized as follows:

	Foreign Currency Translation	Gain (Loss) on Derivative Financial Instruments	Pension & Other Postretirement Benefit Adjust	Total Accumulated Other Comprehensive Income (Loss)
Balance at January 1, 2020	$(100,663)	$ (1,307)	$ (95,681)	$ (197,651)
Other comprehensive income (loss)	(9,678)	(4,362)	(16,425)	(30,465)
Income tax (expense) benefit	897	1,077	4,228	6,202
Other comprehensive income (loss), net of tax	(8,781)	(3,285)	(12,197)	(24,263)
Reclassification adjustment to net income (loss)	25,295	8,724	15,296	49,315
Income tax (expense) benefit	—	(1,868)	(3,937)	(5,805)
Reclassification adjustment to net income (loss), net of tax	25,295	6,856	11,359	43,510
Other comprehensive income (loss), net of tax	16,514	3,571	(838)	19,247
Balance at December 31, 2020	(84,149)	2,264	(96,519)	(178,404)

(In thousands)	(In thousands)	Foreign Currency Translation	Gain (Loss) on Derivative Financial Instruments	Pension & Other Postretirement Benefit Adjust	Total Accumulated Other Comprehensive Income (Loss)
Balance at January 1, 2021					
Other comprehensive income (loss)	Other comprehensive income (loss)	(2,008)	3,800	23,932	25,724
Income tax (expense) benefit	Income tax (expense) benefit	365	(842)	(5,212)	(5,689)
Other comprehensive income (loss), net of tax	Other comprehensive income (loss), net of tax	(1,643)	2,958	18,720	20,035
Reclassification adjustment to net income (loss)	Reclassification adjustment to net income (loss)	—	(5,513)	16,862	11,349

Income tax (expense) benefit	Income tax (expense) benefit	—	1,192	(3,676)	(2,484)
Reclassification adjustment to net income (loss), net of tax	Reclassification adjustment to net income (loss), net of tax	—	(4,321)	13,186	8,865
Other comprehensive income (loss), net of tax	Other comprehensive income (loss), net of tax	(1,643)	(1,363)	31,906	28,900
Balance at December 31, 2021	Balance at December 31, 2021	(85,792)	901	(64,613)	(149,504)
Other comprehensive income (loss)	Other comprehensive income (loss)	**3**	**(1,256)**	**(6,464)**	**(7,717)**
Income tax (expense) benefit	Income tax (expense) benefit	**(290)**	**(374)**	**1,400**	**736**
Other comprehensive income (loss), net of tax	Other comprehensive income (loss), net of tax	**(287)**	**(1,630)**	**(5,064)**	**(6,981)**
Reclassification adjustment to net income (loss)	Reclassification adjustment to net income (loss)	**—**	**(2,461)**	**13,606**	**11,145**
Income tax (expense) benefit	Income tax (expense) benefit	**—**	**710**	**(2,965)**	**(2,255)**
Reclassification adjustment to net income (loss), net of tax	Reclassification adjustment to net income (loss), net of tax	**—**	**(1,751)**	**10,641**	**8,890**
Other comprehensive income (loss), net of tax	Other comprehensive income (loss), net of tax	**(287)**	**(3,381)**	**5,577**	**1,909**
Balance at December 31, 2022	Balance at December 31, 2022	**$ (86,079)**	**$ (2,480)**	**$ (59,036)**	**$ (147,595)**
Other comprehensive income (loss)					
Income tax (expense) benefit					
Other comprehensive income (loss), net of tax					
Reclassification adjustment to net income (loss)					
Income tax (expense) benefit					
Reclassification adjustment to net income (loss), net of tax					

Other comprehensive income (loss), net of tax	
Balance at December 31, 2023	

The amounts reclassified out of accumulated other comprehensive income (loss) related to pension and other postretirement benefits is are included in the computation of net periodic pension costs, see Note 8 for additional details.

Recently Issued Accounting Standards Adopted.Standards.

New accounting pronouncements adopted in 2023:

In March 2020, July 2023, the Financial Accounting Standards Standard Board ("FASB" ("FASB") issued Accounting Standards Update Updated ("ASU") 2020-04 "Reference Rate Reform 2023-03 to amend various Securities and Exchange Commission ("SEC") paragraphs in the Accounting Standards Codification ("ASC") to primarily reflect the issuance of SEC Staff Accounting Bulletin No. 120. ASU No. 2023-03, "Presentation of Financial Statements (Topic 848)" 205), which provides optional expedients Income Statement—Reporting Comprehensive Income (Topic 220), Distinguishing Liabilities from Equity (Topic 480), Equity (Topic 505), and exceptions Compensation—Stock Compensation (Topic 718): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 120, SEC Staff Announcement at the March 24, 2022 Emerging Issues Task Force ("EITF") Meeting, and Staff Accounting Bulletin Topic 6.B, Accounting Series Release 280—General Revision of Regulation S-X: Income or Loss Applicable to Common Stock." ASU 2023-03 amends the ASC for applying GAAP SEC updates pursuant to contracts, hedging relationships SEC Staff Accounting Bulletin No. 120; SEC Staff Announcement at the March 24, 2022 EITF Meeting; and other transactions affected by the discontinuation Staff Accounting Bulletin Topic 6.B, Accounting Series Release 280 - General Revision of the London Interbank Offered Rate Regulation S-X: Income or by another reference rate expected Loss Applicable to be discontinued because of reference rate reform. The guidance was Common Stock. These updates were immediately effective beginning March 12, 2020 and can be applied prospectively through December 31, 2024. In January 2021, the FASB issued ASU 2021-01, which clarified the scope and application of the original guidance. In the second quarter of 2022, the Company adopted ASU 2020-04, which did not have a material impact on the Company's Company's consolidated financial statements.

Accounting standards not yet adopted:

In September 2022, October 2023, the FASB issued ASU 2022-04 "Liabilities - Supplier Finance Programs (Subtopic 405-50)", which requires that 2023-06 to amend various paragraphs in the ASC to primarily reflect the issuance of SEC Staff Bulletin No. 33-10532. ASU 2023-06 will impact various disclosure areas, including the statement of cash flows, accounting changes and error corrections, earnings per share, debt, equity, derivatives, and transfers of financial assets. The amendments in this ASU 2023-06 will be effective on the date the related disclosures are removed from Regulation S-X or Regulation S-K by the SEC and will no longer be effective if the SEC has not removed the applicable disclosure requirement by June 30, 2027. Early adoption is not permitted. The Company does not expect a buyer in a supplier finance program disclose sufficient information about material impact from the program to allow users adoption of the this standard on our consolidated financial statements and related disclosures.

In November 2023, the FASB issued ASU 2023-07 to understand improve reportable segment disclosure and requirements, primarily through the program's nature, activity during enhanced disclosures about significant segment expenses. ASU 2023-07 expands public entities' segment disclosures by requiring disclosure of significant segment expenses that are regularly provided to the period, changes from period to period chief operating decision maker and potential magnitude. The guidance included within each reported measure of segment profit or loss, an amount and description of its composition for other segment items, and interim disclosures of a reportable segment's profit or loss and assets. All disclosure requirements of ASU 2023-07 are required for entities with a single reportable segment. This ASU is effective for fiscal years beginning after December 15, 2022 December 15, 2023 and interim period beginning after December 15, 2024, including interim with early adoption permitted. The amendments in this ASU are to be applied retrospectively to all prior periods within those fiscal years, except presented in the financial statements. The Company is currently evaluating the impact of this standard on our consolidated financial statements and related disclosures.

In December 2023, the FASB issued ASU 2023-09 to improve the income tax disclosures related to the rate reconciliation and income taxes paid information and to improve the effectiveness of income tax disclosures. The amendments in this ASU will require the Company to disclose specified additional information in its income tax rate reconciliation and provide additional information for reconciling items that meet a quantitative threshold. ASU 2023-09 will also require the amendment on roll forward information, which Company to disaggregate its income taxes paid disclosure by federal, state and foreign taxes, with further disaggregation required for significant individual jurisdictions. This ASU is effective for fiscal years annual periods beginning after December 15, 2023. In December 15, 2024, early adoption is permitted. The Company is currently evaluating the fourth quarter impact of 2022, the Company adopted ASU 2022-04, which did not have a material impact this standard on the Company's our consolidated financial statements. See Note 17 for more details. statements and related disclosures.

2. ACCOUNTS AND OTHER RECEIVABLES

As of December 31, 2022 December 31, 2023 and 2021, 2022, accounts receivable and other receivables, net, include the following:

(In thousands)	(In thousands)	**2022**	2021	(In thousands)	**2023**	2022
Customer receivables	Customer receivables	**$83,667**	$102,090			
Other accounts and notes receivable		**3,874**	2,958			
Other receivables						
Total accounts and other receivables	Total accounts and other receivables	**87,541**	105,048			

Less: Allowance for bad debts	Less: Allowance for bad debts	**(2,997)**	(1,736)
Total accounts and other receivables, net	Total accounts and other receivables, net	**$84,544**	$103,312

A reconciliation of the beginning and ending balances of the allowance for doubtful accounts for the three years ended December 31, 2022 December 31, 2023 is as follows:

(In thousands)	(In thousands)	**2022**	2021	2020	(In thousands)	**2023**	2022	2021
Balance, beginning of year	Balance, beginning of year	**$1,736**	$2,797	$1,904				
Charges to expense	Charges to expense	**1,926**	1,440	1,901				
Recoveries	Recoveries	**2**	35	(90)				
Write-offs and settlements	Write-offs and settlements	**(639)**	(1,246)	(709)				
Foreign exchange and other	Foreign exchange and other	**(28)**	(1,290)	(209)				
Balance, end of year	Balance, end of year	**$2,997**	$1,736	$2,797				

3. INVENTORIES

Inventories consist of the following:

(In thousands)	(In thousands)	**2022**	2021	(In thousands)	**2023**	2022
Finished goods	Finished goods	**$ 34,686**	$25,199			
Work-in-process	Work-in-process	**15,604**	11,955			
Raw materials	Raw materials	**58,262**	32,958			
Stores, supplies and other	Stores, supplies and other	**19,219**	18,457			
Total	Total	**$127,771**	$88,569			

Inventories stated on the LIFO basis amounted to $7.2 million at December 31, 2023 and $25.3 million at December 31, 2022 and $18.8 million at December 31, 2021, which were below replacement costs by $13.2 million at December 31, 2023 and $15.6 million at December 31, 2022 and $27.5 million at December 31, 2021. Inventories stated on the weighted average cost basis were $45.3 million and $62.9 million at December 31, 2023 and $30.9 million at December 31, 2022 and 2021, 2022, respectively, while inventories stated on the FIFO method amounted to $29.6 million and $39.5 million at December 31, 2023 and $38.9 million at December 31, 2022 and 2021, 2022, respectively.

4. LEASES

Tredegar has various operating lease agreements with remaining terms up to 10 9 years, including leases of real estate, office equipment and vehicles. As of December 31, 2022 December 31, 2023 and 2021, 2022, the Company had no finance lease agreements. Some leases include options to purchase the leased asset, terminate the agreement or extend the term of the agreement for one or more years. These options are included in the lease term when it is reasonably certain that the option will be exercised.

The following table presents a maturity analysis of the Company's operating leases as of December 31, 2022 December 31, 2023:

(In thousands)	(In thousands)		
		Future Lease Payments	
2023		$	2,616
(In thousands)			
(In thousands)			

			Future Lease Payments
			Future Lease Payments
			Future Lease Payments
2024			
2024			
2024	2024		2,423
2025	2025		2,383
2025			
2025			
2026			
2026			
2026	2026		2,047
2027	2027		1,726
2027			
2027			
2028			
2028			
2028			
Thereafter			
Thereafter			
Thereafter	Thereafter		6,158
Total undiscounted operating lease payments	Total undiscounted operating lease payments		17,353
Total undiscounted operating lease payments			
Total undiscounted operating lease payments			
Less: Imputed interest			
Less: Imputed interest			
Less: Imputed interest	Less: Imputed interest		2,580
Present value of operating lease liabilities	Present value of operating lease liabilities	$	14,773
Present value of operating lease liabilities			
Present value of operating lease liabilities			

The following table summarizes lease costs, related cash flow and other information for the years ended December 31, 2022 December 31, 2023 and 2021. 2022. These costs are primarily related to long-term operating leases, but also include amounts for variable leases and short-term leases.

(In thousands)	(In thousands)	**2022**	2021	(In thousands)	**2023**	2022
Operating lease expense	Operating lease expense	**$2,718**	$2,752			
Other Information:	Other Information:					
Other Information:						
Other Information:						
Weighted-average remaining lease term for operating leases						
Weighted-average remaining lease term for operating leases						

Weighted-average remaining lease term for operating leases	Weighted-average remaining lease term for operating leases	**8 years**	7 years	**7 years**	8 years
Weighted-average discount rate for operating leases	Weighted-average discount rate for operating leases	**4.27 %**	4.22 %	Weighted-average discount rate for operating leases **4.46 %**	4.27 %

5. GOODWILL AND IDENTIFIABLE INTANGIBLE ASSETS

A reconciliation of goodwill at December 31, 2022 December 31, 2023 and 2021 2022 is as follows:

(In thousands)	Aluminum Extrusions(a)	PE Films(a)	Total
Net carrying value of goodwill at December 31, 2020	$ 10,370	$ 57,338	$ 67,708
Out-of-period adjustment	2,900	—	2,900
Net carrying value of goodwill at December 31, 2021	13,270	57,338	70,608
Net carrying value of goodwill at December 31, 2022	**$ 13,270**	**$ 57,338**	**$ 70,608**

(a) The goodwill of Aluminum Extrusions and PE Films is carried by the Futura and Surface Protection reporting units, respectively.

During the fourth quarter of 2021, the Company recorded an out-of-period adjustment in connection with the original valuation of intangible assets and goodwill related to the acquisition of Futura in February 2017. This adjustment resulted in a reclassification of $2.9 million from acquired customer relationship intangible assets to goodwill and a $0.9 million decrease to accumulated amortization and amortization expense as of and for the period ended December 31, 2021.

(In thousands)	Aluminum Extrusions(a)	PE Films(a)	Total
Net carrying value of goodwill at December 31, 2021	$ 13,270	$ 57,338	$ 70,608
Net carrying value of goodwill at December 31, 2022	13,270	57,338	70,608
Goodwill impairment	**—**	**(34,891)**	**(34,891)**
Net carrying value of goodwill at December 31, 2023	**$ 13,270**	**$ 22,447**	**$ 35,717**

(a) The goodwill of Aluminum Extrusions and PE Films is carried by the Futura and Surface Protection reporting units, respectively.

A reconciliation of identifiable intangibles at December 31, 2022 December 31, 2023 and 2021 2022 is as follows:

(In thousands)	(In thousands)	Customer Relationships	Proprietary Technology	Trade Names	Total
(In thousands)					
(In thousands)					
Gross carrying value at December 31, 2022					
Gross carrying value at December 31, 2022					
Gross carrying value at December 31, 2022	Gross carrying value at December 31, 2022	**$ 26,549**	**$ 3,726**	**$ 13,394**	**$ 43,669**
Accumulated amortization	Accumulated amortization	**(15,467)**	**(3,672)**	**(12,840)**	**(31,979)**
Accumulated amortization					
Accumulated amortization					
Net carrying value at December 31, 2022					
Net carrying value at December 31, 2022					
Net carrying value at December 31, 2022	Net carrying value at December 31, 2022	**$ 11,082**	**$ 54**	**$ 554**	**$ 11,690**

Gross carrying value at December 31, 2021(a)	$	26,526	$	3,721	$	13,338	$	43,585
Gross carrying value at December 31, 2023								
Gross carrying value at December 31, 2023								
Gross carrying value at December 31, 2023								
Accumulated amortization / Accumulated amortization		(13,267)		(3,603)		(12,563)		(29,433)
Net carrying value at December 31, 2021	$	13,259	$	118	$	775	$	14,152

(a) Includes a $2.9 million gross reclassification from customer relationship intangible assets to goodwill offset by a $0.9 million decrease to accumulated amortization as a result of the out-of-period adjustment.

Accumulated amortization	
Accumulated amortization	
Net carrying value at December 31, 2023	
Net carrying value at December 31, 2023	
Net carrying value at December 31, 2023	

Amortization expense over the next five years is expected to be as follows:

Year		Amount (In thousands)
2023	$	**1,894**
2024		**1,854**
2025		**1,854**
2026		**1,854**
2027		**1,854**

$1.9 million per year.

6. ACCRUED EXPENSES

Accrued expenses consist of the following:

(In thousands)	(In thousands)	**2022**	2021	(In thousands)	**2023**	2022
Incentive compensation		**$ 6,103**	$ 7,016			
Payrolls, related taxes and medical and other benefits	Payrolls, related taxes and medical and other benefits	**5,916**	7,558			
Vacation	Vacation	**3,502**	3,452			
Workers' compensation and disabilities						
Group annuity contract premium liability						
Customer rebates						
Environmental liabilities						

Accrued utilities			
Accrued interest			
Incentive compensation			
Derivative contract liability	Derivative contract liability	**3,260**	1,254
Accrued freight	Accrued freight	**2,298**	2,337
Accrued utilities		**2,099**	1,938
Workers' compensation and disabilities		**2,051**	2,422
Environmental liabilities		**1,627**	1,634
Customer rebates		**1,154**	1,857
Other	Other	**3,593**	3,636
Total	Total	**$31,603**	$33,104

In the fourth quarter of 2021, the Company changed its vacation policy such that effective January 1, 2022 substantially all U.S. employees earn their vacation for the current year on a monthly basis throughout the year and forfeit any unused vacation at the end of the year, with the exception of a partial rollover allowance subject to a cap or where forfeiture is prohibited by applicable state or local law or a collective bargaining agreement. Under the previous policy, vacation was granted at the beginning of the year in advance of work being performed for the subsequent year. As a result of this policy change, the Company recorded in the fourth quarter of 2021 a reduction of $3.9 million to accrued expenses and a decrease to selling, general, and administrative expense ($1.3 million) and cost of goods sold ($2.6 million) within the consolidated statements of income.

7. DEBT AND CREDIT AGREEMENTS

ABL Facility

On June 29, 2022 August 3, 2023, Tredegar the Company entered into a Amendment No. 2 to the Second Amended and Restated Credit Agreement (the "Credit (collectively the "Prior Credit Agreement") that replaced its existing, which amended the financial covenants and decreased aggregate borrowings from $375 million five-year, to $200 million.

On December 27, 2023, the Company entered into Amendment No. 3 (the "ABL Facility") to the Prior Credit Agreement, which provides the Company with $180 million senior secured asset-based revolving credit facility that was due to will expire on June 28, 2024 June 30, 2026. The Credit Agreement is a five-year, revolving, secured credit facility that permits aggregate borrowings of $375 million and matures on June 29, 2027.

Borrowings under the Credit Agreement bear an interest rate equal to Secured Overnight Financing Rate ("SOFR") plus a credit spread adjustment of 10 basis points ("Adjusted Term SOFR Rate") and an amount depending on the type of borrowing and commitment fees charged on the unused amount under the Credit Agreement at various Total Net Leverage Ratio levels as follows:

Pricing Under the Credit Agreement (Basis Points)		
Total Net Leverage Ratio	Term Benchmark Spread	Commitment Fee
<= 1.0x	150.0	20
>1.0x but <=2.0x	162.5	25
>2.0x but <=3.0x	175.0	30
>3.0x but <=3.5x	187.5	35
>3.5x	200.0	40

At December 31, 2022, $137.0 million of the outstanding debt was principally priced at an interest rate equal to the Adjusted Term SOFR Rate plus the applicable credit spread of 162.5 basis points. Prior to the Credit Agreement, the interest rate on borrowings was based on London Inter-Bank Offered Rate plus an applicable credit spread.

The primary restrictive covenants in the Credit Agreement include:

- Total Net Leverage Ratio of 4.00x;
- Interest Coverage Ratio of 3.00x; and
- Unlimited payments for dividends and stock repurchases during the term of the Credit Agreement so long as the Total Net Leverage Ratio is equal to or less than 2.00x, and otherwise restrictions on payments for dividends and stock repurchases for the term of the Credit Agreement at $75 million (provided that the $75 million basket will reset at the end of each fiscal quarter when the Total Net Leverage ratio is less than or equal to 2.00x).

Under the Credit Agreement:

- Total Net Leverage Ratio is defined as the ratio of (a)(i) total indebtedness minus (ii) liquidity (the lesser of $50,000,000 and the aggregate amount of cash and cash equivalents) to (b) EBITDA (as defined in Credit Agreement "Credit EBITDA"); and

- Interest Coverage Ratio is defined as the ratio of Credit EBITDA to interest expense.

The Credit Agreement ABL Facility is secured by substantially all assets of the Company and its domestic subsidiaries, including equity in certain material first-tier foreign subsidiaries. At December 31, 2022 Availability for borrowings under the ABL Facility is governed by a borrowing base, determined by the application of specified advance rates against eligible assets, including a portion of trade accounts receivable, inventory, cash and cash equivalents, owned real properties, and owned machinery and equipment. Upon the earlier of March 31, 2025 or the date the Company receives the proceeds from the sale of Terphane (the "ABL Adjustment Date"), based the $180 million ABL Facility will be reduced to $125 million. As of December 31, 2023, availability under the ABL Facility was $22.9 million, after reducing the availability by the aggregate outstanding borrowings of $126.3 million, standby letters of credit of $13.1 million, and the Minimum Liquidity (as defined in the ABL Facility) financial covenant. The Company incurred $2.6 million of debt issuance costs in conjunction with the ABL Facility, which are being amortized on a straight-line basis over the remaining term of the ABL Facility.

Outstanding borrowings accrue interest at the rates elected by the Company depending on the type of loan and denomination of such borrowing. With respect to revolving loans denominated in U.S. Dollars, the Company may elect interest rates at:

- Alternate Base Rate ("ABR") plus 2.50% before the ABL Adjustment Date and the applicable ABR Spread (as defined in the ABL Facility) after the ABL Adjustment Date are determined in accordance with an excess availability-based pricing grid. ABR is defined, in part, as the greater of (a) the Prime Rate in effect on such day, (b) the Federal Reserve Bank of New York Rate in effect on such day plus ½ of 1% and (c) the Adjusted Term SOFR Rate (defined below) for a one-month period plus 1%; or
- The Adjusted Term SOFR Rate plus 3.50% before the ABL Adjustment Date and the applicable Term Benchmark Spread (as defined in the ABL Facility) are determined in accordance with an excess availability-based pricing grid after the ABL Adjustment Date. Adjusted Term SOFR Rate is defined as the Term SOFR Rate plus 0.10%, subject to an initial Floor (as defined in the ABL Facility) of 0%.

Interest rate indices for select non-U.S. dollar borrowings, including borrowings denominated in Euro, Pounds Sterling, Swiss Francs and Japanese Yen, remain consistent with the terms of the Prior Credit Agreement.

Based upon the most restrictive covenant within the Credit Agreement, available credit quarterly average of daily availability under the ABL Facility, the interest rate pricing grid applicable after the ABL Adjustment Date will be as follows:

Pricing under the ABL Facility (Basis Points)			
Quarter Average of Daily Availability	Term Benchmark Spread	ABR Spread	Commitment Fee*
> 66% of $125 million aggregate commitment	225.0	125.0	40.0
≤ 66% but > 33% of $125 million aggregate commitment	250.0	150.0	40.0
≤ 33% of $125 million aggregate commitment	275.0	175.0	40.0

* The Commitment Fee before the ABL Adjustment Date and after the ABL Adjustment Date remain the same as reflected in this table.

Under the terms of the ABL Facility, certain domestic bank accounts are subject to blocked account agreements, each of which contains a springing feature whereby the lenders may exercise control over those accounts during a cash dominion period (any such period, a "Cash Dominion Period"). A Cash Dominion Period was implemented on the date of the closing of the ABL Facility and will remain in effect at all times prior to the ABL Adjustment Date. After the ABL Adjustment Date, a Cash Dominion Period goes into effect if availability under the ABL Facility falls below 12.5% or an Event of Default (as defined in the ABL Facility) occurs. The Company would then be subject to the Cash Dominion Period until the Event of Default is waived or ABL Facility availability is above 12.5% of the $125 million aggregate commitment for 30 consecutive days. Receipts that have not yet been applied to the ABL Facility are classified as restricted cash in the Company's consolidated balance sheets.

The financial covenants in the ABL Facility, which are reported to lenders on a monthly basis, include:

- Until the ABL Adjustment Date, the Company is required to maintain (i) minimum Credit Agreement was approximately $201 million. Tredegar EBITDA (as defined in the ABL Facility), as of the end of each fiscal month for the 12-month period then ended (presented below) and (ii) a Minimum Liquidity (as defined in the ABL Facility) of $10.0 million.

Minimum Credit EBITDA (In thousands)		
December 2023	$	21,070
January 2024		21,110
February 2024		18,750
March 2024		16,640
April 2024		19,780
May 2024		19,660
June 2024		19,450
July 2024		21,860
August 2024		22,830
September 2024		25,370
October 2024		26,070
November 2024		27,640
December 2024		29,640
January 2025		29,740
February 2025		29,850
March 2025	$	29,980

- Following the ABL Adjustment Date, the foregoing financial covenants will cease to exist and will be replaced with a minimum fixed charge coverage ratio of 1.00:1.00 that will be triggered in the event that availability is less than 10% of $125 million commitment amount and continuing thereafter until availability is greater than 10% of the $125 million commitment amount for 30 consecutive days.

In addition to the financial covenants, the ABL Facility contains restrictive covenants, including covenants that restrict the Company's ability to pay dividends and repurchase shares of its common stock.

If at any time the availability under the ABL facility is less than 10% (but on and after the ABL Adjustment Date, 20%) of the maximum aggregate principal amount in effect at such time or an Event of Default occurs, the Company's current monthly reporting requirements to lenders changes to a weekly cadence until the Event of Default is waived, cured or the availability under the ABL facility is above 10% (but on and after the ABL Adjustment Date, 20%) of the maximum aggregate principal amount for 30 consecutive days.

The ABL Facility has customary representations and warranties including, as a condition to each borrowing, that all such representations and warranties are true and correct in all material respects (including a representation that no Material
Adverse Effect (as defined in the ABL Facility) has occurred since December 31, 2022). In the event that the Company cannot certify that all conditions to the borrowing have been met, the lenders can restrict the Company's future borrowings under the ABL Facility. Because a Cash Dominion Period is currently in effect and the Company is required to represent that no Material Adverse Effect has occurred as a condition to borrowing, the outstanding debt under the ABL Facility (all contractual payments due on June 30, 2026) is classified as a current liability in the consolidated balance sheets.

In accordance with the ABL Facility, the lenders have been provided with the Company's financial statements, covenant compliance certificates and projections to facilitate their ongoing assessment of the Company. Accordingly, the Company believes the likelihood that lenders would exercise the subjective acceleration clause whereby prohibiting future borrowings is remote. As of December 31, 2023, the Company was in compliance with all debt covenants.

Terphane Brazil Loan

On October 26, 2023, Flexible Packaging Film's business unit in Brazil ("Terphane Ltda."), the Company's wholly owned subsidiary in Brazil, borrowed $20 million secured by certain of its debt covenants assets ("Terphane Brazil Loan"). This U.S. Dollar borrowing matures on October 30, 2028, with interest payable quarterly at an annual floating interest rate of the Secured Overnight Financing Rate ("SOFR") plus 5.99%. The SOFR rate was 5.36% as of December 31, 2022 December 31, 2023. Quarterly principal payments of $1.7 million begin starting in year 3 of the loan. There are no prepayment penalties. The Company expects that the Terphane Brazil Loan will be repaid (and collateral released) upon the closing of the Contingent Terphane Sale. On October 26, 2023, the Company borrowed $20 million from Terphane Brazil (the "Intercompany Loan") at the same interest rate as the Terphane Brazil Loan, thereby transferring the funds to the U.S. The Company will repay the Intercompany Loan in conjunction with the closing of the Contingent Terphane Sale.

8. RETIREMENT PLANS AND OTHER POSTRETIREMENT BENEFITS

Tredegar sponsors sponsored a noncontributory defined benefit (pension) plan covering certain current and former U.S. employees. The plan for salaried and hourly employees currently in effect is was based on a formula using the participant's years of service and compensation or using the participant's years of service and a dollar amount. The plan is closed to new participants and pay for active plan participants for benefit calculations was frozen as of December 31, 2007. As of January 31, 2018, the plan no longer accrued benefits associated with crediting employees for service, thereby freezing all future benefits under the plan. On February 10, 2022, Tredegar announced the initiation of a process to terminate and settle its frozen defined benefit pension plan through lump sum distributions and the purchase of annuity contracts. In connection therewith, on February 9, 2022, the Company contributed $50 million to the pension plan.

During the third quarter of 2023, the Company remeasured the pension plan, which resulted in a pre-tax pension settlement loss in the consolidated results of operation of $25.6 million. The remeasurement of the pension benefit obligation and plan assets was triggered by $64.5 million of lump sum distributions from the pension plan assets which exceeded the pension plan's service and interest cost.

On September 27, 2023, the Company borrowed $30 million under the Prior Credit Agreement in anticipation of the final funding expected for terminating its defined benefit pension plan obligation. OnOctober 31, 2023, the Company used this cash to contribute $27.7 million to fully fund the pension plan with the amount necessary to purchase from Massachusetts Mutual Life Insurance Company a nonparticipating single premium group annuity contract for $157.5 million. On November 3, 2023, the pension plan termination and settlement process was completed, and the Company's relevant pension plan obligation was transferred to Massachusetts Mutual Life Insurance Company. This completed the pension plan termination process that began in February 2022. As a result of the routine administrative process to transition the pension plan, the Company recognized a $2.0 million charge to adjust the initial purchase price of the nonparticipating single premium group annuity contract. During the fourth quarter of 2023, the Company recognized a pre-tax pension settlement loss of $66.7 million.

Tredegar also has a non-qualified supplemental pension plan covering certain employees. Effective December 31, 2005, further participation in this plan was terminated and benefit accruals for existing participants were frozen. The plan was designed to restore all or a part of the pension benefits that would have been payable to designated participants from the principal pension plans if it were not for limitations imposed by income tax regulations. The projected benefit obligation relating to this unfunded plan was $1.7 million $1.6 million and $2.1 $1.7 million at December 31, 2022 December 31, 2023 and December 31, 2021 December 31, 2022, respectively. Pension expense recognized for this plan was $0.1 million $0.1 million in 2023, 2022 2021 and 2020. 2021. This information has been included in the pension benefit tables below.

In addition to providing pension benefits, the Company provides postretirement life insurance and health care benefits for certain groups of employees. Tredegar and retirees share in the cost of postretirement health care benefits, with employees hired on or before January 1, 1993, receiving a fixed subsidy to cover a portion of their health care premiums. The Company eliminated prescription drug coverage for Medicare-eligible retirees as of January 1, 2006. Consequently, Tredegar is not eligible for any federal subsidies. Pension and other postretirement benefit liabilities related to Personal Care Films have been retained by the Company. Pension expense recognized for participation by these former employees in the Company's plans is not material for the years ended December 31, 2022, 2021, and 2020.

The following tables reconcile the changes in benefit obligations and plan assets in 2022 2023 and 2021, 2022, and reconcile the funded status to prepaid or accrued cost at December 31, 2022 December 31, 2023 and 2021: 2022:

		Pension Benefits		Other Post-Retirement Benefits			Pension Benefits		Other Post-Retirement Benefits	
(In thousands)	(In thousands)	**2022**	2021	**2022**	2021	(In thousands)	**2023**	2022	**2023**	2022
Change in benefit obligation:	Change in benefit obligation:									
Benefit obligation, beginning of year	Benefit obligation, beginning of year	**$316,169**	$336,159	**$ 7,370**	$ 8,164					
Benefit obligation, beginning of year										
Benefit obligation, beginning of year										
Service cost	Service cost	**—**	—	**18**	21					
Interest cost	Interest cost	**8,945**	8,398	**207**	195					
Effect of actuarial (gains) losses related to the following:	Effect of actuarial (gains) losses related to the following:									
Discount rate change	Discount rate change	**(61,519)**	(12,512)	**(1,483)**	(272)					
Retirement rate assumptions and mortality table adjustments		**—**	1,028	**—**	(1)					
Discount rate change										
Discount rate change										
Other										
Other										
Other	Other	**1,513**	(101)	**90**	(274)					
Plan participant contributions	Plan participant contributions	**—**	—	**554**	613					
Benefits paid	Benefits paid	**(16,994)**	(16,803)	**(1,030)**	(1,076)					
Settlement payments and annuity purchase										

Benefit obligation, end of year	Benefit obligation, end of year	**$248,114**	$316,169	**$ 5,726**	$ 7,370
Change in plan assets:	Change in plan assets:				
Plan assets at fair value, beginning of year					
Plan assets at fair value, beginning of year					
Plan assets at fair value, beginning of year	Plan assets at fair value, beginning of year	**$244,612**	$233,075	**$ —**	$ —
Actual return on plan assets	Actual return on plan assets	**(59,683)**	23,131	**—**	—
Employer contributions	Employer contributions	**50,184**	5,209	**476**	463
Plan participant contributions	Plan participant contributions	**—**	—	**554**	613
Benefits paid	Benefits paid	**(16,994)**	(16,803)	**(1,030)**	(1,076)
Settlement payments and annuity purchase					
Plan assets at fair value, end of year	Plan assets at fair value, end of year	**$218,119**	$244,612	**$ —**	$ —
Funded status of the plans	Funded status of the plans	**$ (29,995)**	$ (71,557)	**$(5,726)**	$(7,370)
Amounts recognized in the consolidated balance sheets:	Amounts recognized in the consolidated balance sheets:				
Accrued expenses (current)	Accrued expenses (current)	**$ 180**	$ 181	**$ 489**	$ 478
Accrued expenses (current)					
Accrued expenses (current)					
Pension and other postretirement benefit obligations, net	Pension and other postretirement benefit obligations, net	**29,815**	71,376	**5,237**	6,892
Net amount recognized	Net amount recognized	**$ 29,995**	$ 71,557	**$ 5,726**	$ 7,370

The following table sets forth the assumptions used in accounting for the pension and other post-retirement benefits, and the components of net periodic benefit cost:

	Pension Benefits	Other Post-Retirement Benefits	Pension Benefits	Other Post-Retirement Benefits

(In thousands, except percentages)	(In thousands, except percentages)	**2022**	2021	2020	**2022**	2021	2020	(In thousands, except percentages)	**2023**	2022	2021	**2023**	2022	2021
Weighted-average assumptions used to determine benefit obligations:	Weighted-average assumptions used to determine benefit obligations:													
Discount rate	Discount rate	**5.07 %**	2.90 %	2.57 %	**5.17 %**	2.86 %	2.54 %							
Discount rate														
Discount rate									**4.89 %**	5.07 %	2.90 %	**4.98 %**	5.17 %	2.86 %
Expected long-term return on plan assets	Expected long-term return on plan assets	**4.99 %**	3.05 %	5.00 %	**n/a**	n/a	n/a	Expected long-term return on plan assets	**n/a**	4.99 %	3.05 %	**n/a**		n/a
Weighted-average assumptions used to determine net periodic benefit cost:	Weighted-average assumptions used to determine net periodic benefit cost:													
Discount rate		**2.90 %**	2.57 %	3.27 %	**2.86 %**	2.54 %	3.25 %							
Discount rate(a)														
Discount rate(a)														
Discount rate(a)									**5.07%/5.37%**	2.90 %	2.57 %	**5.17 %**	2.86 %	2.54 %
Expected long-term return on plan assets	Expected long-term return on plan assets	**3.05 %**	5.00 %	5.00 %	**n/a**	n/a	n/a	Expected long-term return on plan assets	**n/a**	3.05 %	5.00 %	**n/a**		n/a
Components of net periodic benefit cost:	Components of net periodic benefit cost:													
Service cost														
Service cost														
Service cost	Service cost	**$ —**	$ —	$ —	**$ 18**	$ 21	$ 29							
Interest cost	Interest cost	**8,945**	8,398	10,156	**207**	195	243							
Expected return on plan assets	Expected return on plan assets	**(8,174)**	(11,316)	(11,004)	**—**	—	—							
Amortization of prior service costs and gains or losses	Amortization of prior service costs and gains or losses	**13,746**	17,003	15,494	**(140)**	(141)	(198)							
Net periodic benefit cost	Net periodic benefit cost	**$14,517**	$14,085	$14,646	**$ 85**	$ 75	$ 74							
Pension settlement loss														
Total benefit cost														

(a) Prior to the pension lump sum distributions in August 2023, a discount rate of 5.07% was used to determine the net periodic benefit cost. Subsequent to August 2023, a discount rate of 5.37% was used to determine the net periodic benefit cost until the Company purchased a nonparticipating single premium group annuity contract in October 2023.		(a) Prior to the pension lump sum distributions in August 2023, a discount rate of 5.07% was used to determine the net periodic benefit cost. Subsequent to August 2023, a discount rate of 5.37% was used to determine the net periodic benefit cost until the Company purchased a nonparticipating single premium group annuity contract in October 2023.

Net periodic benefit cost is determined using assumptions at the beginning of each year. Funded status is determined using assumptions at the end of each year. The amount of the accumulated benefit obligation is the same as the projected benefit obligation. At December 31, 2022 December 31, 2023, the effect of a 1% change in the health care cost trend rate assumptions would not impact the post-retirement obligation.

Expected benefit payments over the next five years and in the aggregate for 2028—2032 are as follows:

(In thousands)	Pension Benefits	Other Post-Retirement Benefits
2023	$ 18,701	$ 489
2024	18,971	480
2025	19,047	469
2026	18,666	458
2027	18,600	446
2028—2032	88,847	2,051

The average remaining duration of benefit payments for the pension plan is about 9.6 years.

(In thousands)	Pension Benefits	Other Post-Retirement Benefits
2024	$ 180	$ 481
2025	172	470
2026	165	456
2027	157	445
2028	148	433
2028—2032	620	1,998

The pre-tax amounts recorded in 2023, 2022 2021 and 2020 2021 in accumulated other comprehensive income (loss) consist of:

	Pension Benefits			Other Post-Retirement Benefits		
(In thousands)	**2022**	2021	2020	**2022**	2021	2020
Net actuarial (gain) loss	**$ 103,998**	$ 109,893	$ 150,267	**$ (1,574)**	$ (320)	$ 86

(In thousands)	Pension Benefits 2023	Pension Benefits 2022	Pension Benefits 2021	Other Post-Retirement Benefits 2023	Other Post-Retirement Benefits 2022	Other Post-Retirement Benefits 2021
Net actuarial (gain) loss	**$ 415**	$ 103,998	$ 109,893	**$ (1,250)**	$ (1,574)	$ (320)

Pension expense is expected to be approximately $14 million in 2023. The amounts in accumulated other comprehensive income, before related deferred income taxes, that which are expected to be recognized as components of net periodic cost during 2023 2024 are approximately $12 million of cost for the pension plan and approximately $0.2 million $0.1 million of benefit for other post-retirement plans.

There were no plan assets as of December 31, 2023. The percentage composition of assets held by the pension plans plan at December 31, 2022, 2021 and 2020 are was as follows:

	% Composition of Plan Assets at December 31, 2022	2021	2020
Pension plans:			
Fixed income mutual fund	**13.9 %**	—	—
Fixed income securities	**—**	25.3 %	7.7 %
Large/mid-capitalization equity securities	**—**	28.1	27.1
Small-capitalization equity securities	**—**	6.8	8.6
International and emerging market equity securities	**—**	19.9	20.6
Total equity securities	**—**	54.8	56.3
Private equity and hedge funds	**4.8**	10.4	12.1
Collective investment trust	**69.9**	—	—
Cash and cash equivalents	**11.4**	2.8	17.5
Other assets	**—**	6.7	6.4
Total	**100.0 %**	100.0 %	100.0 %

	% Composition of Plan Assets at December 31, 2022
Pension plan:	
Fixed income mutual fund	13.9 %
Private equity and hedge funds	4.8
Collective investment trust	69.9
Cash and cash equivalents	11.4
Total	100.0 %

Following the announcement to terminate and settle the pension plan in 2022, the Company contributed $50 million to the pension plan and implemented (through consultation with its investment advisors) a liability-matching bond portfolio investment strategy (including a derivative overlay) that hedged the estimated settlement funding gap, which was approximately $24 million (before plan administration costs) at that time. The overall objective of this hedging program is was to minimize the volatility of the estimated settlement funding gap such that, as applicable interest rates move moved up or down causing a decrease or increase in the estimated value of the settlement liability, the value of the matching bond portfolio and derivative overlay decreases decreased or increases increased by a similar amount. Accordingly, the expected long-term rate return of 3.05% used in 2022 and 4.99% used in 2023 contemplated the liability-driven investment strategy.

A lower expected return on plan assets increases increased the amount of expense and vice versa. Decreases in the level of actual plan assets will would also serve to increase the amount of pension expense. The total return on plan assets (net of fees and plan expenses), which is was primarily affected by the change in fair value of plan assets, current year contributions and current year payments to participants, was approximately negative 15.1% in 2022 and positive 10.4% in 2021 and positive 10.9% in 2020. 2021.

The expected long-term rate return of 5.00% used in both 2021 and 2020 were determined at the end of 2020 and 2019 and therefore did not contemplate the liability-driven investment strategy discussed above, however, the expected long-term rate return of 3.05% used in 2022 and 4.99% for 2023 does contemplate the liability-driven investment strategy discussed above.

Estimates of the fair value of assets held by the Company's pension plan are were provided by unaffiliated third parties. Investments in collective investment trusts, private equity, hedge funds and certain international equity securities are were measured at net asset value, which is was a practical expedient for measuring fair value. These assets are were therefore excluded from the fair value hierarchy for each of the years year presented. At December 31, 2022 and 2021, , the pension plan assets are categorized by level within the fair value measurement hierarchy as follows:

(In thousands)		Total		Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)
Balances at December 31, 2022								
Cash and cash equivalents(a)	**$**	**24,796**	**$**	**24,796**	**$**	**—**	**$**	**—**
Fixed income mutual fund		**30,284**		**30,284**		**—**		**—**
Private equity and hedge funds(b)		**10,250**		**—**		**—**		**10,250**
Total plan assets at fair value	**$**	**65,330**	**$**	**55,080**	**$**	**—**	**$**	**10,250**
Investments measured at net asset value:								
Collective investment trust(c)		**152,389**						
Private equity and hedge funds		**141**						
Total investments measured at net asset value	**$**	**152,530**						
Securities sold and interest receivable		**259**						
Total plan assets, December 31, 2022	**$**	**218,119**						
Balances at December 31, 2021								
Cash and cash equivalents	$	6,943	$	6,943	$	—	$	—
Large/mid-capitalization equity securities		68,739		68,739		—		—
Small-capitalization equity securities		16,588		16,588		—		—
International and emerging market equity securities		25,174		25,174		—		—
Fixed income securities		61,845		9,306		52,539		—
Contracts with insurance companies		9,438		—		—		9,438
Other assets(d)		6,868		6,868		—		—
Total plan assets at fair value	$	195,595	$	133,618	$	52,539	$	9,438
Investments measured at net asset value		49,017						
Total plan assets, December 31, 2021	$	244,612						

(a) This category represents investments in cash and cash equivalents, which includes: 1.) cash held in the plan used for investments in U.S. Treasury futures which are entered into to minimize the volatility of the estimated settlement funding gap; and 2.) short term money market fund in which the amortized cost approximates fair value. These investments are highly liquid and therefore are classified as level 1 securities.

(b) Represents the estimated fair market value of the Company's ownership in private equity and hedge funds which are probable of being sold for an amount different from the net asset value per share in connection with the expected termination of the pension plan.

(c) The collective investment trust contains liability hedging fixed income investments and are valued at the net asset value of the collective investment trust. The net asset value is used as a practical expedient to estimate fair value. The net asset value is based on the fair value of the underlying investments held by the fund less its liabilities.

(d) Represents investments in certain commodity funds measured using quoted market prices.

(In thousands)		Total		Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)
Balances at December 31, 2022								
Cash and cash equivalents(a)	$	24,796	$	24,796	$	—	$	—
Fixed income mutual fund		30,284		30,284		—		—
Private equity and hedge funds(b)		10,250		—		—		10,250
Total plan assets at fair value	$	65,330	$	55,080	$	—	$	10,250
Investments measured at net asset value:								
Collective investment trust(c)		152,389						
Private equity and hedge funds		141						
Total investments measured at net asset value	$	152,530						
Securities sold and interest receivable		259						
Total plan assets, December 31, 2022	$	218,119						

(a) This category represents investments in cash and cash equivalents, which includes: 1.) cash held in the plan used for investments in U.S. Treasury futures which were entered into to minimize the volatility of the estimated settlement funding gap; and 2.) short term money market fund in which the amortized cost approximates fair value. These investments were highly liquid and therefore were classified as Level 1 securities.
(b) Represents the estimated fair market value of the Company’s ownership in private equity and hedge funds which were probable of being sold for an amount different from the net asset value per share in connection with the expected termination of the pension plan.
(c) The collective investment trust contains liability hedging fixed income investments and were valued at the net asset value of the collective investment trust. The net asset value was used as a practical expedient to estimate fair value. The net asset value was based on the fair value of the underlying investments held by the fund less its liabilities.
(d) Represents investments in certain commodity funds measured using quoted market prices.

9. OTHER INCOME (EXPENSE), NET

Other income (expense), net consists of the following:

(In thousands)	(In thousands)	**2022**	2021	2020	(In thousands)	**2023**	2022	2021
Gain (loss) on investment in kaléo[a]		**$1,406**	$12,780	$(60,900)				
Gain on investment in kaléo[a]								
One-time tax credit in Brazil for unemployment/social security insurance non-income taxes resulting from a favorable decision by Brazil’s Supreme Court regarding the calculation of such tax	One-time tax credit in Brazil for unemployment/social security insurance non-income taxes resulting from a favorable decision by Brazil’s Supreme Court regarding the calculation of such tax	**—**	8,486	—				
COVID-19-related expenses[b]	COVID-19-related expenses[b]	**(350)**	(624)	(2,231)				
Loss on sale of Bright View Technologies		**—**	—	(2,299)				
Group annuity contract premium expense[c]								
Other	Other	**(121)**	(266)	(1,864)				
Total	Total	**$ 935**	$20,376	$(67,294)				

(a) In May 2022, additional cash consideration of $1.4 million was received related to customary post-closing adjustments. The gain in 2021 includes a $0.3 million dividend received from kaléo in the first quarter of 2021. See Note 16 for additional information.
(b) Costs associated with operating under COVID-19 conditions include employee overtime expenses associated with absenteeism, personal protective equipment supplies and facility maintenance.

(a) In January 2023 and May 2022, additional cash consideration of $0.3 million and $1.4 million, respectively was received related to customary post-closing adjustments. The gain in 2021 includes a $0.3 million dividend received from kaléo in the first quarter of 2021.
(b) Costs associated with operating under COVID-19 conditions include employee overtime expenses associated with absenteeism, personal protective equipment supplies and facility maintenance.
(c) See Note 8 for more information.

(a) In January 2023 and May 2022, additional cash consideration of $0.3 million and $1.4 million, respectively was received related to customary post-closing adjustments. The gain in 2021 includes a $0.3 million dividend received from kaléo in the first quarter of 2021.
(b) Costs associated with operating under COVID-19 conditions include employee overtime expenses associated with absenteeism, personal protective equipment supplies and facility maintenance.
(c) See Note 8 for more information.

On December 27, 2021, the Company completed the sale of its investment interests in kaleo, Inc. ("kaléo") (Series A-3 Preferred Stock, Series B Preferred Stock and common stock) that, taken together, represented on a fully diluted basis an approximate 18% interest in kaléo. Tredegar received closing cash proceeds of $47.1 million.

In May 2021, the Brazil Supreme Court ruled in a leading case related to the amount of Brazilian value-added tax to exclude from the calculation of unemployment/social security insurance non-income taxes ("PIS/COFINS"). As a result, in the second quarter of 2021, the Company recorded a pre-tax gain of $8.5 million for certain excess PIS/COFINS paid from 2003 to 2021, that included applicable interest, which the Company applied to required Brazilian federal tax payments during 2021. The pre-tax gain was recorded in "Other income (expense), net" in the consolidated statements of income.

In December 2020, the Company entered into a definitive agreement and completed the sale of Bright View Technologies, which resulted in the recognition of a pre-tax loss of $2.3 million ($1.8 million after-tax).

10. DERIVATIVES

Tredegar uses derivative financial instruments for the purpose of hedging margin exposure from fixed-price forward sales contracts in Aluminum Extrusions and exposure from currency volatility that exist as part of ongoing business operations (primarily in Flexible Packaging Films). These derivative financial instruments are designated as and qualify as cash flow hedges and are recognized in the consolidated balance sheet at fair value. The fair value of derivative instruments recorded on the consolidated balance sheets are is based upon Level 2 inputs. If individual derivative instruments with the same counterparty can be settled on a net basis, the Company records the corresponding derivative fair values as a net asset or net liability.

In the normal course of business, Aluminum Extrusions enters into fixed-price forward sales contracts with certain customers for the future sale of fixed quantities of aluminum extrusions at scheduled intervals. In order to hedge margin exposure created from the fixing of future sales prices relative to volatile raw material (aluminum) costs, Aluminum Extrusions enters into a combination of forward purchase commitments and futures contracts to acquire or hedge aluminum, based on the scheduled purchases for the firm sales commitments. The fixed-price firm sales commitments and related hedging instruments generally have durations of not more than 12 months, and the notional amount of aluminum futures contracts that hedged future purchases of aluminum to meet fixed-price forward sales contract obligations was $7.7 million (5.6 million pounds of aluminum) at December 31, 2023 and $30.7 million (20.3 million pounds of aluminum) at December 31, 2022 and $22.1 million (14.9 million pounds of aluminum) at December 31, 2021.

The table below summarizes the location and gross amounts of aluminum derivative contract fair values (Level 2) in the consolidated balance sheets as of December 31, 2022 December 31, 2023 and 2021: 2022:

		December 31, 2022		December 31, 2021			December 31, 2023		December 31, 2022	
(In thousands)	(In thousands)	Balance Sheet Account	Fair Value	Balance Sheet Account	Fair Value	(In thousands)	Balance Sheet Account	Fair Value	Balance Sheet Account	Fair Value
Derivatives Designated as Hedging Instruments	Derivatives Designated as Hedging Instruments									

Asset derivatives: Aluminum futures contracts	Asset derivatives: Aluminum futures contracts	Prepaid expenses & other	**$ 48**	Prepaid expenses & other	$2,085
Asset derivatives: Aluminum futures contracts					
Asset derivatives: Aluminum futures contracts					
Liability derivatives: Aluminum futures contracts	Liability derivatives: Aluminum futures contracts	Accrued expenses	**(3,260)**	Accrued expenses	(119)
Aluminum futures contracts	Aluminum futures contracts	Other non-current liabilities	**(369)**	Other non-current liabilities	—
Net asset (liability)	Net asset (liability)		**$(3,581)**		$1,966

In the event that a counterparty to an aluminum fixed-price forward sales contract chooses not to take delivery of its aluminum extrusions, the customer is contractually obligated to compensate Aluminum Extrusions for any losses on the related aluminum futures and/or forward contracts through the date of cancellation.

The Company's earnings are exposed to foreign currency exchange risk primarily through the translation of the financial statements of subsidiaries that have a functional currency other than the U.S. Dollar. The Company estimates that the net mismatch translation exposure for the Flexible Packaging Film's business unit in Brazil ("Terphane Ltda.") of its sales and raw materials quoted or priced in U.S. Dollars and its variable conversion, fixed conversion and sales, general and administrative costs (before depreciation and amortization) quoted or priced in Brazilian Real is annual net costs of R$177 139 million Brazilian Real ("R$").

Terphane Ltda. has the following outstanding foreign exchange average forward rate contracts to purchase Brazilian Real and sell U.S. Dollars:

USD Notional Amount (000s)	Average Forward Rate Contracted on USD/BRL	R$ Equivalent Amount (000s)	Applicable Month	Estimated % of Terphane Ltda. R$ Operating Cost Exposure Hedged
$1,728	5.4310	R$9,385	Jan-23	64%
$1,822	5.4657	R$9,959	Feb-23	68%
$1,921	5.4995	R$10,565	Mar-23	72%
$1,903	5.5379	R$10,539	Apr-23	72%
$1,873	5.5753	R$10,443	May-23	71%
$1,928	5.6118	R$10,820	Jun-23	74%
$2,154	5.6378	R$12,144	Jul-23	83%
$2,020	5.6831	R$11,480	Aug-23	78%
$2,071	5.7174	R$11,841	Sep-23	80%
$2,013	5.7556	R$11,586	Oct-23	79%
$2,018	5.7836	R$11,671	Nov-23	79%
$1,786	5.8312	R$10,414	Dec-23	71%
$659	5.7360	R$3,780	Jan-24	23%
$659	5.7562	R$3,793	Feb-24	23%
$659	5.7774	R$3,807	Mar-24	23%
$659	5.8000	R$3,822	Apr-24	23%
$659	5.8207	R$3,836	May-24	24%
$659	5.8419	R$3,850	Jun-24	24%
$659	5.8636	R$3,864	Jul-24	24%
$659	5.8872	R$3,880	Aug-24	24%
$659	5.9118	R$3,896	Sep-24	24%
$659	5.9350	R$3,911	Oct-24	24%
$659	5.9581	R$3,926	Nov-24	24%
$659	5.9813	R$3,942	Dec-24	24%

$31,145	5.6880	R$177,154		48%

USD Notional Amount (000s)	Average Forward Rate Contracted on USD/BRL	R$ Equivalent Amount (000s)	Applicable Month	Estimated % of Terphane Ltda. R$ Operating Cost Exposure Hedged
$1,784	5.2993	R$9,454	Jan-24	82%
$1,766	5.3188	R$9,393	Feb-24	81%
$1,781	5.3346	R$9,501	Mar-24	82%
$1,827	5.3373	R$9,751	Apr-24	84%
$1,798	5.3588	R$9,635	May-24	83%
$1,812	5.3708	R$9,732	Jun-24	84%
$1,804	5.3848	R$9,714	Jul-24	84%
$1,806	5.4014	R$9,755	Aug-24	84%
$1,857	5.4107	R$10,048	Sep-24	87%
$1,851	5.4225	R$10,037	Oct-24	87%
$1,837	5.4403	R$9,994	Nov-24	86%
$1,801	5.4580	R$9,830	Dec-24	85%
$21,724	5.3786	R$116,844		84%

These foreign currency exchange contracts have been designated and qualify as cash flow hedges of Terphane Ltda.'s forecasted sales to customers quoted or priced in U.S. Dollars over that period. By changing the currency risk associated with these U.S. Dollar sales, the derivatives have the effect of offsetting operating costs quoted or priced in Brazilian Real and decreasing the net exposure to Brazilian Real in the consolidated statements of income.

The table below summarizes the location and gross amounts of foreign currency forward contract fair values (Level 2) in the consolidated balance sheets as of December 31, 2022 December 31, 2023 and 2021: 2022:

		December 31, 2022		December 31, 2021			December 31, 2023		December 31, 2022	
(In thousands)	(In thousands)	Balance Sheet Account	Fair Value	Balance Sheet Account	Fair Value	(In thousands)	Balance Sheet Account	Fair Value	Balance Sheet Account	Fair Value
Derivatives Designated as Hedging Instruments	Derivatives Designated as Hedging Instruments									
Asset derivatives: Foreign currency forward contracts	Asset derivatives: Foreign currency forward contracts	Prepaid expenses and other	**$781**	Prepaid expenses and other	$ —					
Asset derivatives: Foreign currency forward contracts										
Asset derivatives: Foreign currency forward contracts										
Foreign currency forward contracts	Foreign currency forward contracts	Other non-current assets	**33**	Other non-current assets	—					
Liability derivatives: Foreign currency forward contracts	Liability derivatives: Foreign currency forward contracts	Accrued expenses	**—**	Accrued expenses	(1,255)					

Foreign currency forward contracts	Other non-current liabilities	**(3)**	Other non-current liabilities	—
Liability derivatives: Foreign currency forward contracts				
Liability derivatives: Foreign currency forward contracts				
Net asset (liability)	Net asset (liability)	**$811**		$(1,255)

These derivative contracts involve elements of market risk that are not reflected on the consolidated balance sheet, including the risk of dealing with counterparties and their ability to meet the terms of the contracts. The counterparties to any forward purchase commitments are major aluminum brokers and suppliers, and the counterparties to any aluminum futures contracts are major financial institutions. Fixed-price forward sales contracts are only made available to the best and most credit-worthy creditworthy customers. The counterparties to the Company's foreign currency cash flow hedge contracts are major financial institutions.

The pre-tax effect on net income (loss) from continuing operations and other comprehensive income (loss) of derivative instruments classified as cash flow hedges and described in the previous paragraphs for years ended December 31, 2022 December 31, 2023, 2021, 2022, and 2020 2021 is summarized in the tables below:

(In thousands)	(In thousands)	Cash Flow Derivative Hedges			(In thousands)	Cash Flow Derivative Hedges		
		Aluminum Futures Contracts				Aluminum Futures Contracts		
Years Ended December 31,	Years Ended December 31,	**2022**	2021	2020	Years Ended December 31,	**2023**	2022	2021
Amount of pre-tax gain (loss) recognized in other comprehensive income	Amount of pre-tax gain (loss) recognized in other comprehensive income	**$(4,525)**	$6,215	$ 74				
Location of gain (loss) reclassified from accumulated other comprehensive income into net income (effective portion)	Location of gain (loss) reclassified from accumulated other comprehensive income into net income (effective portion)	Cost of goods sold	Cost of goods sold	Cost of goods sold	Location of gain (loss) reclassified from accumulated other comprehensive income into net income (effective portion)	Cost of goods sold		Cost of goods sold
Amount of pre-tax gain (loss) reclassified from accumulated other comprehensive income to net income (effective portion)	Amount of pre-tax gain (loss) reclassified from accumulated other comprehensive income to net income (effective portion)	**$ 1,022**	$5,787	$(2,717)				

(In thousands)	(In thousands)	Cash Flow Derivative Hedges			(In thousands)	Cash Flow Derivative Hedges		
		Foreign Currency Forward Contracts				Foreign Currency Forward Contracts		
Years Ended December 31,	Years Ended December 31,	**2022**	2021	2020	Years Ended December 31,	**2023**	2022	2021

Amount of pre-tax gain (loss) recognized in other comprehensive income	Amount of pre-tax gain (loss) recognized in other comprehensive income	**$ —**	**$3,269**	$ —	$(2,415)	$ —	$(4,437)							
Location of gain (loss) reclassified from accumulated other comprehensive income into net income (effective portion)	Location of gain (loss) reclassified from accumulated other comprehensive income into net income (effective portion)	Cost of goods sold	Selling, general & admin	Cost of goods sold	Selling, general & admin	Cost of goods sold	Selling, general & admin	Location of gain (loss) reclassified from accumulated other comprehensive income into net income (effective portion)	Cost of goods sold	Selling, general & admin	Cost of goods sold	Selling, general & admin	Cost of goods sold	Selling, general & admin
Amount of pre-tax gain (loss) reclassified from accumulated other comprehensive income to net income (effective portion)	Amount of pre-tax gain (loss) reclassified from accumulated other comprehensive income to net income (effective portion)	**$ 61**	**$1,378**	$ 63	$ (337)	$ 62	$(6,069)							

As of December 31, 2022 December 31, 2023, the Company expects $2.0 million $0.8 million of unrealized after-tax net losses gains on aluminum and foreign currency derivative contracts reported in accumulated other comprehensive income (loss) to be reclassified to earnings within the next 12 months. For the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, net gains or losses realized, from previously unrealized net gains or losses on hedges that had been discontinued, were not material.

11. STOCK OPTION AND STOCK AWARD PLANS

As of December 31, 2022 December 31, 2023, the Company had one stock-based compensation plan that permits the grants of stock options, stock appreciation rights ("SARs"), stock, restricted stock, and stock unit awards. Awards available for grant totaled 681,479 342,709 shares at December 31, 2022 December 31, 2023. Stock options may be granted to purchase a specified number of shares of common stock at a price no lower than the fair market value on the date of grant and for a term not to exceed 10 years. Stock options granted by the Company in 2022, 2021 and 2020 vest after 2 years and have a 7-year life or vest after 3 years and have a 5-year life. Stock options exercisable totaled 2,719,919 3,019,333 and 1,762,190 2,719,919 shares at December 31, 2022 December 31, 2023 and 2021, 2022, respectively.

On December 1, 2020, Tredegar's Board of Directors declared a special cash dividend of $200 million, or $5.97 per share, on the Company's common stock (the "Special Dividend"). The Special Dividend was payable on December 18, 2020 and had an ex-dividend date of December 21, 2020. All stock option awards that were outstanding at the time of the Special Dividend were modified pursuant to the nondiscretionary anti-dilution provisions in the related stock-based compensation plan. SARs that were outstanding at the time of the Special Dividend were also modified pursuant to the nondiscretionary anti-dilution provisions in the related SARs grant agreements. The modifications included increasing the number of outstanding stock options and SARs as well as reducing the exercise prices of all outstanding stock options and SARS. The modification did not result in additional stock-based compensation expense. No other terms or conditions of outstanding awards were modified.

A summary of stock options outstanding at December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, and changes during those years, is presented below:

		Option Exercise Price/Share					Option Exercise Price/Share	
	Number of Options	Range			Weighted Average	Number of Options	Range	Weighted Average
Outstanding at January 1, 2020	1,628,903	$15.65	to	$24.84	$ 19.13			
Granted	638,074	10.75	to	14.62	11.90			
Modification for special cash dividend(a)	701,535	10.75	to	14.62	11.90			
Forfeited and expired(a)	(141,074)	10.75	to	24.84	11.87			
Outstanding at December 31, 2020(a)	2,827,438	10.75	to	22.49	13.55			

Outstanding at January 1, 2021						
Granted	Granted	388,822	16.37	to	16.37	16.37
Forfeited and expired	Forfeited and expired	(22,611)	14.47	to	19.64	18.14
Exercised	Exercised	(67,705)	10.75	to	17.29	13.51
Outstanding at December 31, 2021	Outstanding at December 31, 2021	3,125,944	10.75	to	22.49	13.82
Forfeited and expired	Forfeited and expired	**(17,203)**	**14.47**	**to**	**19.64**	**15.33**
Forfeited and expired						
Forfeited and expired						
Outstanding at December 31, 2022	Outstanding at December 31, 2022	**3,108,741**	**$10.75**	**to**	**$22.49**	**$ 13.81**

(a) The option exercise price per share reflects the reduction to the exercise prices of outstanding stock options impacted by the modification due to the anti-dilution provisions in the stock-based compensation plan.

Outstanding at December 31, 2022
Outstanding at December 31, 2022
Forfeited and expired
Forfeited and expired
Forfeited and expired
Outstanding at December 31, 2023
Outstanding at December 31, 2023
Outstanding at December 31, 2023

No options were granted in 2023 nor 2022. The assumptions used in the Black-Scholes options-pricing model for valuing Tredegar stock options originally granted in 2021, and 2020, and the related estimated fair values at the date of grant, were as follows, no options were granted in 2022: follows:

	2021		2020	
Dividend yield		2.6 %		2.5 %
Weighted average volatility percentage		48.3 %		43.8 %
Weighted average risk-free interest rate		0.9 %		0.8 %
Holding period (years)	5		5	
Weighted average exercise price at date of grant (also weighted average market price at date of grant)(a)	$	16.37	$	14.41
Estimated weighted average fair value of options per share at date of grant	$	5.57	$	4.44
Total estimated fair value of stock options granted (in thousands)	$	2,165	$	2,833

(a) In December 2020, the weighted average exercise price for outstanding stock option awards granted in 2020 were modified to $10.75. As the anti-dilution provisions in the stock-based compensation plan were structured to equitably adjust the award's fair value before and after the modification, there is no resulting incremental fair value.

		2021
Dividend yield		2.6 %
Weighted average volatility percentage		48.3 %
Weighted average risk-free interest rate		0.9 %
Holding period (years)		5
Weighted average exercise price at date of grant (also weighted average market price at date of grant)	$	16.37
Estimated weighted average fair value of options per share at date of grant	$	5.57
Total estimated fair value of stock options granted (in thousands)	$	2,165

The dividend yield is the actual dividend yield on Tredegar’s common stock at the date of grant, which the Company believes is a reasonable estimate of the expected yield during the holding period. The expected volatility is based on the historical volatility of Tredegar’s common stock using a sequential period of historical data equal to the expected holding period of the option. The Company has no reason to believe that future volatility for this period is likely to differ from the past. The assumed risk-free interest rate is based on observed interest rates for U.S. Treasury debt securities appropriate for the expected holding period.

The following table summarizes additional information about stock options outstanding and exercisable at December 31, 2022 December 31, 2023:

Range of Exercise Prices	Range of Exercise Prices	Options Outstanding at December 31, 2022: Shares	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Aggregate Intrinsic Value	Options Exercisable at December 31, 2022: Shares	Weighted Average Exercise Price	Aggregate Intrinsic Value	Options Outstanding at December 31, 2023 (Weighted Average) Aggregate Intrinsic Value	Options Exercisable at December 31, 2023 Aggregate Intrinsic Value
$	10.75 to $16.37	2,939,509	3.4 years	$ 13.47	$ —	2,550,687	$ 13.03	$ —		
$										
$										
17.29	17.29 to 25.94	169,232	0.7 years	19.74	—	169,232	19.74	—		
Total	Total	3,108,741	3.3 years	$ 13.82	$ —	2,719,919	$ 13.45	$ —		

The total intrinsic value of stock options exercised was $0.2 million $0.2 million in 2021. There were no stock options exercised in 2022 2023 and 2020. 2022. The grant-date fair value of stock option-based awards vested in 2023, 2022 and 2021 and 2020 was $2.2 million, $5.4 million, $3.5 million, and $3.0 million $3.5 million, respectively. As of December 31, 2022 December 31, 2023, the there was no unrecognized compensation cost for continuing operations related to stock option-based awards was $0.2 million. This cost is expected to be recognized over the remaining weighted average period of 0.2 years. awards.

Restricted stock grants ordinarily vest three years from the date of grant based upon continued employment. The fair value of restricted stock awards is estimated as of the grant date using the closing stock price on that date. Stock unit awards vest upon the achievement of certain performance targets. The following table summarizes additional information about unvested restricted stock outstanding at December 31, 2022 December 31, 2023, 2021 2022 and 2020: 2021:

	Unvested Restricted Stock: Number of Shares	Weighted Avg. Grant Date Fair Value/Share	Grant Date Fair Value (In thousands)	Maximum Unvested Restricted Stock Units Issuable Upon Satisfaction of Certain Performance Criteria: Number of Shares	Weighted Avg. Grant Date Fair Value/Share	Grant Date Fair Value (In thousands)	Unvested Restricted Stock: Number of Shares	Weighted Avg. Grant Date Fair Value/Share	Grant Date Fair Value (In thousands)	Maximum Unvested Restricted Stock Units Issuable Upon Satisfaction of Certain Performance Criteria: Number of Shares	Weighted Avg. Grant Date Fair Value/Share
Outstanding at January 1, 2020	285,935	$ 18.27	$ 5,224	147,663	$ 21.25	$ 3,138					
Granted	155,138	14.55	2,257	34,275	15.25	523					
Vested	(148,709)	17.39	(2,586)	(37,370)	17.38	(649)					
Forfeited	(57,385)	17.00	(976)	(32,066)	17.36	(557)					
Outstanding at December 31, 2020	234,979	16.68	3,919	112,502	21.82	2,455					

Outstanding at January 1, 2021							
Granted	Granted	200,073	15.63	3,127	14,669	15.24	224
Vested	Vested	(87,636)	15.78	(1,383)	(73,930)	17.17	(1,269)
Forfeited	Forfeited	(11,616)	16.38	(190)	(2,523)	17.63	(44)
Outstanding at December 31, 2021	Outstanding at December 31, 2021	335,800	16.30	5,473	50,718	17.63	1,366
Granted	Granted	**301,969**	**11.88**	**3,587**	**—**	**—**	**—**
Vested	Vested	**(144,317)**	**15.10**	**(2,179)**	**—**	**—**	**—**
Forfeited	Forfeited	**(18,474)**	**14.94**	**(276)**	**(50,718)**	**17.63**	**1,366**
Outstanding at December 31, 2022	Outstanding at December 31, 2022	**474,978**	**$ 13.82**	**$ 6,564**	**—**	**$ —**	**$ —**
Granted							
Vested							
Forfeited							
Outstanding at December 31, 2023							

As of December 31, 2022 December 31, 2023, the unrecognized compensation cost for continuing operations related to non-vested restricted stock awards was $3.2 $3.6 million. This cost is expected to be recognized over the remaining weighted average period of 1.6 1.9 years.

SARs granted by the Company in 2021 and 2020 vest after 2 years and have a 7-year life. There were no SARs granted in 2023 or 2022. SARs may be settled in cash upon exercise and therefore are classified as liabilities and included in accrued expenses in the consolidated balance sheet. The fair value of these liability awards is remeasured at each reporting period until the date of settlement. Increases and decreases in stock-based compensation expense is are recognized over the vesting period, or immediately, for vested awards.

A summary of SARs outstanding at December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, and changes during those years, is presented below:

			Exercise Price/Share					Exercise Price/Share	
		Number of SARs	Range			Weighted Average	Number of SARs	Range	Weighted Average
Outstanding at January 1, 2020		—	$ —	to	$ —	$ —			
Granted(a)		387,252	10.75	to	19.64	11.60			
Modification for special cash dividend		71,402	10.75	to	19.64	11.60			
Forfeited and expired		(82,214)	10.75	to	19.64	11.39			
Outstanding at December 31, 2020		376,440	10.75	to	19.64	11.64			
Outstanding at January 1, 2021									
Granted	Granted	164,464	16.37	to	16.37	16.37			
Forfeited and expired	Forfeited and expired	(10,043)	10.75	to	16.37	13.01			
Exercised	Exercised	(9,260)	10.75	to	15.25	13.87			
Outstanding at December 31, 2021	Outstanding at December 31, 2021	521,601	10.75	to	16.37	13.55			

Forfeited and expired	Forfeited and expired	(22,914)	10.75	to	16.37	14.83

Forfeited and expired

Forfeited and expired

Outstanding at December 31, 2022	Outstanding at December 31, 2022	498,687	$10.75	to	$16.37	$ 13.49

(a) The SARs exercise price per share reflects the reduction to the exercise prices of outstanding SARs as a results of the modification to the awards pursuant to the nondiscretionary anti-dilution provisions in the related SARs grant agreements.

Outstanding at December 31, 2022

Outstanding at December 31, 2022

Forfeited and expired

Forfeited and expired

Forfeited and expired

Outstanding at December 31, 2023

Outstanding at December 31, 2023

Outstanding at December 31, 2023

The grant-date fair value of SARs awards vested in 2022 2021 and 2020 2021 was $0.5 million and $0.1 million, and $0.6 million, respectively. The grant-date fair value of SARs awards vested in 2023 was immaterial. As of December 31, 2022 December 31, 2023, the there was no unrecognized compensation cost for continuing operations was immaterial. This cost is expected related to be recognized over the remaining weighted average period of 0.2 years. SARs.

12. INCOME TAXES

Income (loss) from continuing operations before income taxes and income tax expense (benefit) for continuing operations are as follows:

(In thousands)	(In thousands)	**2022**	2021	2020	(In thousands)	**2023**	2022	2021
Income (loss) from continuing operations before income taxes:								
Income (loss) before income taxes:								
Domestic								
Domestic								
Domestic	Domestic	**$ 3,185**	$22,885	$(58,033)				
Foreign	Foreign	**29,585**	44,336	32,987				
Total	Total	**$32,770**	$67,221	$(25,046)				
Current income tax expense (benefit):	Current income tax expense (benefit):							
Federal								
Federal								
Federal	Federal	**$ 2**	$ 1,232	$ 4,777				
State	State	**772**	764	136				
Foreign	Foreign	**3,071**	13,521	2,374				
Total	Total	**3,845**	15,517	7,287				
Deferred income tax expense (benefit):	Deferred income tax expense (benefit):							

Federal	Federal	**24**	(7,862)	(18,191)
Federal				
Federal				
State	State	**(537)**	125	(640)
Foreign	Foreign	**1,057**	1,504	3,331
Total	Total	**544**	(6,233)	(15,500)
Total income tax expense (benefit)	Total income tax expense (benefit)	**$ 4,389**	$ 9,284	$ (8,213)

The significant differences between the U.S. federal statutory rate and the effective income tax rate related to continuing operations are as follows:

		2022		2021		2020								
	2023								**2023**		2022		2021	
(In thousands, except percentages)	(In thousands, except percentages)	Amount	%	Amount	%	Amount	%	(In thousands, except percentages)	Amount	%	Amount	%	Amount	%
Income tax expense (benefit) at federal statutory rate	Income tax expense (benefit) at federal statutory rate	**$6,882**	**21.0**	$14,116	21.0	$(5,260)	21.0							
Stranded taxes released with termination of pension														
Changes in estimates related to prior year tax provision														
Brazilian tax incentive														
Research and development tax credit														
Tax on Prodepe tax incentive														
State taxes, net of federal income tax benefit														
Foreign currency translation variation on intercompany loans														

Dividend received deduction net of foreign withholding tax							
Foreign derived intangible income deduction							
Tax contingency accruals and tax settlements							
Changes in federal valuation allowance							
Non-deductible other							
Foreign rate differences	Foreign rate differences	**2,924**	**8.9**	8,269	12.3	4,554	(18.2)
U.S. tax on foreign branch income	U.S. tax on foreign branch income	**1,390**	**4.1**	(5,667)	(8.4)	1,409	(5.6)
Non-deductible other		**381**	**1.2**	1,053	1.6	208	(0.8)
Tax contingency accruals and tax settlements		**88**	**0.3**	202	0.3	(58)	0.2
State taxes, net of federal income tax benefit		**48**	**0.1**	933	1.4	(373)	1.5
Valuation allowance for capital loss carryforwards		**—**	**—**	(5,415)	(8.1)	52	(0.2)
Foreign currency translation variation on intercompany loans		**—**	**—**	1,374	2.0	—	—
Dividend received deduction net of foreign withholding tax		**—**	**—**	(109)	(0.2)	(52)	0.2
Changes in estimates related to prior year tax provision		**(175)**	**(0.5)**	(383)	(0.6)	(2,472)	9.9
Foreign derived intangible income deduction		**(763)**	**(2.3)**	—	—	—	—
Tax on Prodepe tax incentive		**(1,024)**	**(3.1)**	2,858	4.3	(801)	3.2
Research and development tax credit		**(1,489)**	**(4.5)**	(928)	(1.4)	(633)	2.5
Brazilian tax incentive		**(3,873)**	**(11.8)**	(7,019)	(10.4)	(4,787)	19.1

Income tax expense (benefit) at effective income tax rate	Income tax expense (benefit) at effective income tax rate	**$4,389**	**13.4**	$	9,284	13.8	$(8,213)	32.8

Provision (benefit) for income taxes for the year ended December 31, 2022 December 31, 2023 was $4.4 $(54.1) million compared to $9.3 $4.4 million for the year ended December 31, 2021 December 31, 2022. The effective tax rates for the years ended December 31, 2022 December 31, 2023 and 2021 2022 were 13.4% 33.8% and 13.8% 13.4%, respectively. The change in effective tax rate is primarily attributed to tax benefits previously recorded in other comprehensive income (loss) that were released as a result of the pension plan termination, partially offset by a reduction in Brazilian tax incentives as a percentage of income. The stranded taxes released with the termination of the pension plan represent the effect of the change in federal and state tax rates on pension-related deferred tax items initially recorded in other comprehensive income. The related stranded taxes were released in full in 2023.

The effective tax rate in 2022 was impacted by a large discrete tax benefit recorded in the first quarter of 2022, resulting from the implementation of new U.S. tax regulations associated with foreign tax credits published by the U.S. Treasury and Internal Revenue Service ("IRS") on January 4, 2022. These regulations overhaul overhauled various components of the foreign tax credit regime including the determination of creditable foreign taxes and limit the amount of foreign taxes that are creditable against U.S. income taxes. This discrete benefit was partially offset by an increase to the effective tax rate as As the result of the these regulations, future Brazilian income tax no longer being under Brazil tax law in place at that time would have been deductible, but not creditable, in the U.S. The accounting rules require a reduction of the U.S. deferred tax liability previously established related to anticipated future income from Brazil. The IRS released guidance in 2023 that provides temporary relief for tax years after 2021 from the foreseeable future. Lastly, regulations published by the U.S. Treasury and Internal Revenue Service on January 4, 2022. As a result of the IRS guidance released in 2023, the reduction in the first quarter of 2022 of the U.S. deferred tax liability previously established related to anticipated future income from Brazil was reversed in 2023.

The effective tax rate changed due to foreign rate differences pertaining to the Company's foreign operations and the benefit from tax incentives in Brazil.

Income taxes in 2021 are primarily due to was impacted by the strong earnings of Terphane Ltda, which are included in Tredegar's U.S. consolidated tax return and, the tax impact of the local statutory tax rates of Tredegar's foreign subsidiaries being higher than the current U.S. tax rate of 21%, the benefit of tax incentives in Brazil and the release of the valuation allowance for capital loss carryforwards.

Income taxes in 2020 were primarily impacted by the tax impact of Terphane Ltda. being included in Tredegar's U.S. consolidated tax return as a foreign branch, the tax impact of the local statutory tax rates of Tredegar's foreign subsidiaries being higher than the current US tax rate of 21%, the benefit of tax incentives in Brazil, and by claims for prior years' U.S. research and development tax credits.

Tredegar accrues U.S. federal income taxes on unremitted earnings of all foreign subsidiaries where required. However, due to changes in the taxation of dividends under TCJA, However; Tredegar will only record U.S. federal income taxes on unremitted earnings of its foreign subsidiaries where Tredegar cannot take steps to eliminate any potential tax on future distributions from its foreign subsidiaries. Because of the accumulation of significant losses related to foreign currency translations at Terphane Ltda., there were no deferred income tax liabilities associated with the U.S. federal income taxes and foreign withholding taxes on Terphane Ltda.'s undistributed earnings as of December 31, 2022 December 31, 2023 and 2021. Beginning January 1, 2022, the TCJA eliminated the option to deduct research and development expenditures in the current year and requires taxpayers to capitalize such expenses as a result of amendments to Internal Revenue Code ("IRC") Section 174. As a result of this provision of the TCJA, deferred tax assets related to capitalized research expenses pursuant to the amended IRC Section 174 increased by a net $4.8 million. 2022.

The Brazilian federal statutory income tax rate is a composite of 34.0% (25.0% of income tax and 9.0% of social contribution on income). Terphane's manufacturing facility in Brazil is the beneficiary of certain income tax incentives that allow for a reduction in the statutory Brazilian federal income tax rate levied on the operating profit of its products. These incentives produce a current tax rate of 15.25% for Terphane (6.25% of income tax and 9.0% social contribution on income). The incentives were originally granted for a 10-year period commencing January 1, 2015 and expiring at the end of 2024.

Terphane Brazil has been granted an additional three years of tax incentives through the end of 2027. The benefit from the tax incentives was $0.9 million, $3.9 million and $7.0 million in 2023, 2022 and $4.8 million in 2022, 2021, and 2020, respectively.

Deferred income tax liabilities assets and deferred income tax assets liabilities at December 31, 2022 December 31, 2023 and 2021, 2022, are as follows:

(In thousands)	(In thousands)	**2022**	2021	(In thousands)	**2023**	2022
Deferred income tax assets:						
Pension and other postretirement obligations						
Pension and other postretirement obligations						
Pension and other postretirement obligations						
Employee benefits						
Basis difference in capital assets						
Inventory						

Asset write-offs, divestitures and environmental accruals			
U.S. federal and state NOL and credit carryforwards			
Capitalized R&D expenditures			
Other			
Lease liabilities			
Interest expense limitation			
Foreign currency translation gain adjustment			
Deferred income tax assets before valuation allowance			
Less: Valuation allowance			
Total deferred income tax assets			
Deferred income tax liabilities:	Deferred income tax liabilities:		
Amortization of goodwill and identifiable intangibles		**$ 10,533**	$ 10,215
Depreciation		**14,950**	12,902
Goodwill and identifiable intangibles			
Goodwill and identifiable intangibles			
Goodwill and identifiable intangibles			
Property, plant and equipment			
Foregone tax credits on foreign branch income	Foregone tax credits on foreign branch income	**719**	4,796

Right-of-use leased assets	Right-of-use leased assets	**3,147**	2,767
Right-of-use leased assets			
Right-of-use leased assets			
Other	Other	**722**	520
Total deferred income tax liabilities	Total deferred income tax liabilities	**30,071**	31,200
Deferred income tax assets:			
Pensions		**7,535**	5,632
Employee benefits		**7,558**	7,791
Excess capital losses		**1,099**	1,097
Inventory		**3,952**	3,775
Asset write-offs, divestitures and environmental accruals		**1,075**	1,173
Tax benefit on U.S. federal, state and foreign NOL and credit carryforwards		**24,914**	33,922
Section 174 Capitalized R&D expenditures		**4,874**	—
Other		**1,220**	146
Lease liabilities		**3,328**	2,977
Tax basis remaining for installment sale - kaléo		**999**	1,092
Foreign currency translation gain adjustment		**1,224**	1,970
Deferred income tax assets before valuation allowance		**57,778**	59,575
Less: Valuation allowance		**13,807**	12,652
Total deferred income tax assets		**43,971**	46,923
Net deferred income tax (assets) liabilities		**$(13,900)**	$(15,723)
Net deferred income tax assets (liabilities)			
Amounts recognized in the consolidated balance sheets:	Amounts recognized in the consolidated balance sheets:		
Deferred income tax assets (noncurrent)			
Deferred income tax assets (noncurrent)			
Deferred income tax assets (noncurrent)	Deferred income tax assets (noncurrent)	**$ 13,900**	$ 15,723
Deferred income tax liabilities (noncurrent)	Deferred income tax liabilities (noncurrent)	**—**	—

Net deferred income tax assets (liabilities)	Net deferred income tax assets (liabilities)	$ 13,900	$ 15,723

Except as noted below, the Company believes that it is more likely than not that future taxable income will exceed future tax-deductible amounts thereby resulting in the realization of deferred income tax assets. assets the Company had U.S. federal and state tax credits of $16.7 million, net operating loss carryforwards of $16.5 million and a deferred interest limitation of $2.6 million at December 31, 2023. The Company has estimated gross had U.S. federal state and foreign state tax credits of $15.3 million and net operating loss carryforwards of $24.9 million $9.6 million at December 31, 2022. The U.S. federal net operating loss and $33.9 million at December 31, 2022 and 2021, respectively. deferred interest limitation can be carried forward indefinitely. The U.S. federal foreign tax credits will expire between 2027-2031 2027-2033 and the U.S. federal research and development tax credits will expire by 2043. 2044. The U.S. state carryforwards expire at different points over the next 20 years.

Valuation allowances of $10.3 million $12.9 million, $10.3 million and $9.4 million at December 31, 2023, 2022 and $5.5 million at December 31, 2022, 2021, and 2020, respectively, are recorded against the tax benefit on U.S. federal state and foreign state tax credits and net operating loss carryforwards generated by domestic subsidiaries that may not be recoverable in the carryforward period. The valuation allowance for excess unrealized capital losses from investments and other related items was $0.7 million, $0.7 million at December 31, 2022 and $7.1 million at December 31, 2022, 2021 and 2020, respectively. 2021. The amount of the deferred income tax asset considered realizable, however, could be adjusted in the near term if estimates of the fair value of certain investments during the carryforward carry-forward period change. As circumstances and events warrant, allowances will be reversed when it is more likely than not that future taxable income will exceed deductible amounts, thereby resulting in the realization of deferred income tax assets. Valuation allowances of $2.2 million, $2.8 million and $2.5 million at December 31, 2023, 2022 and $4.9 million at December 31, 2022, 2021, and 2020, respectively, were recorded against certain deferred state tax assets.

A reconciliation of the Company's unrecognized uncertain tax positions since January 1, 2020 January 1, 2021, is shown below:

		Years Ended December 31,				Years Ended December 31,		
(In thousands)	(In thousands)	**2022**	2021	2020	(In thousands)	**2023**	2022	2021
Balance at beginning of period	Balance at beginning of period	**$ 648**	$ 628	$ 881				
Increase (decrease) due to tax positions taken in:	Increase (decrease) due to tax positions taken in:							
Current period	Current period	**2**	—	12				
Current period								
Current period								
Prior period	Prior period	**44**	40	—				
Reductions due to lapse of statute of limitations	Reductions due to lapse of statute of limitations	**(66)**	(20)	(265)				
Balance at end of period	Balance at end of period	**$ 628**	$ 648	$ 628				

Additional information related to unrecognized uncertain tax positions since January 1, 2020 January 1, 2021 is summarized below:

		Years Ended December 31,				Years Ended December 31,		
(In thousands)	(In thousands)	**2022**	2021	2020	(In thousands)	**2023**	2022	2021

Gross unrecognized tax benefits on uncertain tax positions (reflected in current income tax, other noncurrent liability accounts, or deferred tax assets in the balance sheet)	Gross unrecognized tax benefits on uncertain tax positions (reflected in current income tax, other noncurrent liability accounts, or deferred tax assets in the balance sheet)	**$628**	$648	$628
Deferred income tax assets related to unrecognized tax benefits on uncertain tax positions (reflected in deferred income tax accounts in the balance sheet)	Deferred income tax assets related to unrecognized tax benefits on uncertain tax positions (reflected in deferred income tax accounts in the balance sheet)	**143**	48	(110)
Net unrecognized tax benefits on uncertain tax positions, which would impact the effective tax rate if recognized	Net unrecognized tax benefits on uncertain tax positions, which would impact the effective tax rate if recognized	**771**	696	518
Interest and penalties accrued on deductions taken relating to uncertain tax positions (approximately $16, $26 and $2 reflected in income tax expense in the income statement in 2022, 2021 and 2020, respectively, with the balance shown in current income tax and other noncurrent liability accounts in the balance sheet)		**149**	133	102

Interest and penalties accrued on deductions taken relating to uncertain tax positions (approximately $20, $16 and $26 reflected in income tax expense in the income statement in 2023, 2022 and 2021, respectively, with the balance shown in current income tax and other noncurrent liability accounts in the balance sheet)				
Related deferred income tax assets recognized on interest and penalties	Related deferred income tax assets recognized on interest and penalties	**(34)**	(31)	(24)
Interest and penalties accrued on uncertain tax positions net of related deferred income tax benefits, which would impact the effective tax rate if recognized	Interest and penalties accrued on uncertain tax positions net of related deferred income tax benefits, which would impact the effective tax rate if recognized	**115**	102	78
Total net unrecognized tax benefits on uncertain tax positions reflected in the balance sheet, which would impact the effective tax rate if recognized	Total net unrecognized tax benefits on uncertain tax positions reflected in the balance sheet, which would impact the effective tax rate if recognized	**$886**	$798	$596

Tredegar, or one of its subsidiaries, files income tax returns in the U.S. federal jurisdiction, various states and jurisdictions outside the U.S. With few exceptions, Tredegar is no longer subject to U.S. federal, state or non-U.S. income tax examinations by tax authorities for years before 2019. 2020. The Company anticipates that it is reasonably possible that Federal and state income tax audits or statutes may settle or close within the next 12 months and are not expected to result in a material changes change in unrecognized tax positions, including any payments that may be made.

13. BUSINESS SEGMENTS

The Company's business segments are Aluminum Extrusions, PE Films and Flexible Packaging Films. Aluminum Extrusions, also referred to as Bonnell Aluminum, produces high-quality, soft and medium strength alloyed aluminum extrusions, custom fabricated and finished, for the building and construction, automotive and transportation, consumer durables goods, machinery and equipment, electrical and renewable energy, and distribution markets. PE Films produces surface protection films, polyethylene overwrap films and films for other markets. Flexible Packaging Films produces polyester based films for use in packaging applications that have specialized properties, such as heat resistance, strength, barrier protection and the ability to accept high-quality print graphics.

The Company's reportable segments are based on its method of internal reporting, which is generally segregated by differences in products. Accounting standards for presentation of segments require an approach based on the way the Company organizes the segments for making operating decisions and how the chief operating decision maker ("CODM") assesses performance. EBITDA from ongoing operations is the key profitability measure used by the CODM (Tredegar's President and Chief Executive Officer) for purposes of assessing financial performance. The Company uses sales less freight ("net sales") from continuing operations as its measure of revenues from external customers at the segment level. This measure is separately included in the financial information regularly provided to the CODM. Earnings before interest and taxes ("EBIT") from ongoing operations is a non-GAAP financial measure included in the reconciliation of segment financial information to consolidated results for the Company below.

Information by business segment and geographic area for the last three years is provided in the segment tables below. There were no accounting transactions between segments and no allocations to segments.

Net Sales			
(In thousands)	**2022**	2021	2020
Aluminum Extrusions	**$ 637,872**	$ 539,325	$ 455,711
PE Films	**97,571**	118,920	139,288
Flexible Packaging Films	**168,139**	139,978	134,605
Total net sales	**903,582**	798,223	729,604
Add back freight	**34,982**	28,232	25,686
Sales as shown in consolidated statements of income	**$ 938,564**	$ 826,455	$ 755,290

Refer to Notes to Financial Tables that follow these tables.

EBITDA from Ongoing Operations			
(In thousands)	**2022**	2021	2020
Aluminum Extrusions:			
Ongoing operations:			
EBITDA	**$ 66,800**	$ 55,948	$ 55,137
Depreciation & amortization	**(17,414)**	(16,272)	(17,403)
EBIT	**49,386**	39,676	37,734
Plant shutdowns, asset impairments, restructurings and other (a)	**(310)**	3,237	(3,506)
Goodwill impairment charge	**—**	—	(13,696)
PE Films:			
Ongoing operations:			
EBITDA	**11,949**	27,694	45,107
Depreciation & amortization	**(6,280)**	(6,263)	(6,762)
EBIT	**5,669**	21,431	38,345
Plant shutdowns, asset impairments, restructurings and other (a)	**(646)**	(371)	(1,974)
Flexible Packaging Films:			
Ongoing operations:			
EBITDA	**27,452**	31,684	30,645
Depreciation & amortization	**(2,444)**	(1,988)	(1,761)
EBIT	**25,008**	29,696	28,884
Plant shutdowns, asset impairments, restructurings and other (a)	**(91)**	8,439	(18)
Total	**79,016**	102,108	85,769
Interest income	**57**	73	44
Interest expense	**4,990**	3,386	2,587
Gain (loss) on investment in kaléo (a)	**1,406**	12,780	(60,900)
Loss on sale of Bright View (a)	**—**	—	(2,299)
Stock option-based compensation expense	**1,424**	2,495	2,161

Corporate expenses, net (a)	**41,295**	41,859	42,912
Income (loss) from continuing operations before income taxes	**32,770**	67,221	(25,046)
Income tax expense (benefit) (a)	**4,389**	9,284	(8,213)
Income (loss) from continuing operations	**28,381**	57,937	(16,833)
Income (loss) from discontinued operations, net of tax (a)	**74**	(111)	(58,611)
Net income (loss)	**$ 28,455**	$ 57,826	$ (75,444)

Net Sales			
(In thousands)	**2023**	2022	2021
Aluminum Extrusions	**$ 474,803**	$ 637,872	$ 539,325
PE Films	**76,763**	97,571	118,920
Flexible Packaging Films	**126,326**	168,139	139,978
Total net sales	**677,892**	903,582	798,223
Add back freight	**26,933**	34,982	28,232
Sales as shown in consolidated statements of income (loss)	**$ 704,825**	$ 938,564	$ 826,455

Refer to Notes to Financial Tables that follow these tables.

Identifiable Assets		
(In thousands)	**2022**	2021
Aluminum Extrusions	**$ 293,308**	$ 280,521
PE Films	**102,431**	113,613
Flexible Packaging Films	**103,448**	75,269
Subtotal	**499,187**	469,403
General corporate	**23,674**	23,482
Cash and cash equivalents (b)	**19,232**	30,521
Discontinued operations	**—**	178
Total	**$ 542,093**	$ 523,584

EBITDA from Ongoing Operations			
(In thousands)	**2023**	2022	2021
Aluminum Extrusions:			
Ongoing operations:			
EBITDA	**$ 37,976**	$ 66,800	$ 55,948
Depreciation & amortization	**(17,927)**	(17,414)	(16,272)
EBIT	**20,049**	49,386	39,676
Plant shutdowns, asset impairments, restructurings and other (a)	**(3,557)**	(310)	3,237
PE Films:			
Ongoing operations:			
EBITDA	**11,217**	11,949	27,694
Depreciation & amortization	**(6,522)**	(6,280)	(6,263)
EBIT	**4,695**	5,669	21,431
Plant shutdowns, asset impairments, restructurings and other (a)	**(4,972)**	(646)	(371)
Goodwill impairment	**(34,891)**	—	—
Flexible Packaging Films:			
Ongoing operations:			
EBITDA	**4,383**	27,452	31,684
Depreciation & amortization	**(2,865)**	(2,444)	(1,988)
EBIT	**1,518**	25,008	29,696
Plant shutdowns, asset impairments, restructurings and other (a)	**(113)**	(91)	8,439

Total		**(17,271)**		79,016		102,108
Interest income		**522**		57		73
Interest expense		**11,607**		4,990		3,386
Gain on investment in kaléo (a)		**262**		1,406		12,780
Stock option-based compensation expense		**231**		1,424		2,495
Pension settlement loss		**92,291**		—		—
Corporate expenses, net (a)		**39,414**		41,221		41,970
Income (loss) before income taxes		**(160,030)**		32,844		67,110
Income tax expense (benefit) (a)		**(54,125)**		4,389		9,284
Net income (loss)	**$**	**(105,905)**	$	28,455	$	57,826

	Depreciation and Amortization						Capital Expenditures					
(In thousands)		***2022***		*2021*		*2020*		***2022***		*2021*		*2020*
Aluminum Extrusions	***$***	***17,414***	*$*	*15,326*	*$*	*17,403*	***$***	***23,664***	*$*	*18,914*	*$*	*10,260*
PE Films		***6,280***		*6,263*		*6,762*		***3,289***		*2,997*		*6,024*
Flexible Packaging Films		***2,444***		*1,988*		*1,761*		***8,151***		*5,603*		*4,959*
Subtotal		***26,138***		*23,577*		*25,926*		***35,104***		*27,514*		*21,243*
General corporate (d)		***264***		*207*		*520*		***1,771***		*(153)*		*200*
Discontinued operations		***—***		*—*		*5,511*		***—***		*—*		*1,912*
Total	***$***	***26,402***	*$*	*23,784*	*$*	*31,957*	***$***	***36,875***	*$*	*27,361*	*$*	*23,355*

Refer to Notes to Financial Tables that follow these tables.

Net Sales by Geographic Area (c)						
(In thousands)		**2022**		2021		2020
United States	**$**	**717,049**	$	614,987	$	530,243
Exports from the United States to:						
Asia		**41,995**		59,242		80,217
Canada		**15,264**		17,776		18,024
Europe		**3,885**		4,489		5,440
Latin America		**6,867**		4,937		2,169
Operations outside the United States:						
Brazil		**117,896**		96,792		93,511
Asia		**626**		—		—
Total	**$**	**903,582**	$	798,223	$	729,604

Identifiable Assets				
(In thousands)		**2023**		2022
Aluminum Extrusions	**$**	**255,756**	$	293,308
PE Films		**56,536**		102,431
Flexible Packaging Films		**84,062**		103,448
Subtotal		**396,354**		499,187
General corporate		**36,652**		23,674
Cash, cash equivalents and restricted cash (b)		**13,455**		19,232
Total	**$**	**446,461**	$	542,093

	Identifiable Assets by Geographic Area (c)				Property, Plant & Equipment, Net by Geographic Area (c)			
(In thousands)		**2022**		2021		**2022**		2021
United States	**$**	**413,512**	$	398,749	**$**	**146,437**	$	135,310
Operations outside the United States:								
Brazil		**72,725**		54,299		**25,385**		18,615

China		12,950		16,355		11,903		14,889
General corporate		23,674		23,482		2,686		1,567
Cash and cash equivalents (b)		19,232		30,521		n/a		n/a
Discontinued operations		—		178		—		—
Total	$	542,093	$	523,584	$	186,411	$	170,381

	Depreciation and Amortization						*Capital Expenditures*					
(In thousands)		**2023**		2022		2021		**2023**		2022		2021
Aluminum Extrusions	$	**17,927**	$	17,414	$	15,326	$	**20,339**	$	23,664	$	18,914
PE Films		**6,522**		6,280		6,263		**1,772**		3,289		2,997
Flexible Packaging Films		**2,865**		2,444		1,988		**4,323**		8,151		5,603
Subtotal		**27,314**		26,138		23,577		**26,434**		35,104		27,514
General corporate (d)		**369**		264		207		**12**		1,771		(153)
Total	$	**27,683**	$	26,402	$	23,784	$	**26,446**	$	36,875	$	27,361

	Net Sales by Geographic Area (c)					
(In thousands)		**2023**		2022		2021
United States	$	**537,818**	$	717,049	$	614,987
Exports from the United States to:						
Asia		**26,239**		41,995		59,242
Canada		**15,597**		15,264		17,776
Europe		**1,905**		3,885		4,489
Latin America		**6,704**		6,867		4,937
Operations outside the United States:						
Brazil		**89,077**		117,896		96,792
Asia		**552**		626		—
Total	$	**677,892**	$	903,582	$	798,223

	Identifiable Assets by Geographic Area (c)				*Property, Plant & Equipment, Net by Geographic Area (c)*			
(In thousands)		**2023**		2022		**2023**		2022
United States	$	**320,604**	$	413,512	$	**143,729**	$	146,437
Operations outside the United States:								
Brazil		**65,495**		72,725		**28,121**		25,385
China		**10,255**		12,950		**9,361**		11,903
General corporate		**36,652**		23,674		**2,244**		2,686
Cash, cash equivalents and restricted cash (b)		**13,455**		19,232		**n/a**		n/a
Total	$	**446,461**	$	542,093	$	**183,455**	$	186,411

Refer to Notes to Financial Tables that follow these tables.

The Company's facilities in Pottsville, PA ("PV") and Guangzhou, China ("GZ") have a tolling arrangement whereby certain surface protection films are manufactured in GZ for a fee with raw materials supplied from PV that are then shipped by GZ directly to customers principally in the Asian market but paid by customers directly to PV. Amounts associated with this intercompany tolling arrangement are reported in the table above as export sales from the U.S. to Asia, and include net sales of $15.9 million in 2023, $20.1 million in 2022 and $32.7 million in 2021 and $35.1 million in 2020. 2021.

					Net Sales by Product Group		
(In thousands)	(In thousands)	**2022**	2021	2020	(In thousands)	**2023**	2022	2021
Aluminum Extrusions:	Aluminum Extrusions:							
Nonresidential building & construction								
Nonresidential building & construction								

Nonresidential building & construction	Nonresidential building & construction	**$338,981**	$269,252	$253,126
Consumer durables	Consumer durables	**62,541**	53,578	44,167
Automotive	Automotive	**51,286**	43,256	35,895
Machinery & equipment	Machinery & equipment	**63,326**	42,721	30,649
Distribution	Distribution	**29,732**	45,639	28,339
Residential building & construction	Residential building & construction	**64,268**	52,236	40,049
Electrical	Electrical	**27,738**	32,643	23,486
Subtotal	Subtotal	**637,872**	539,325	455,711
PE Films:	PE Films:			
Surface protection films	Surface protection films	**68,140**	88,436	109,097
Surface protection films				
Surface protection films				
Packaging	Packaging	**29,431**	30,484	22,700
LED-based products		**—**	—	7,491
Subtotal				
Subtotal				
Subtotal	Subtotal	**97,571**	118,920	139,288
Flexible Packaging Films	Flexible Packaging Films	**168,139**	139,978	134,605
Total	Total	**$903,582**	$798,223	$729,604

(a) See Notes 1, 5, 9 12 and 15 12 for more information on losses associated with plant shutdowns, asset impairments and restructurings, unusual items, gains or losses from sale of assets, gains or losses on an investment accounted for under the fair value method and other items.

(b) Cash, and cash equivalents and restricted cash includes funds held in locations outside the U.S. of $9.8 million and $10.3 million at December 31, 2023 and $16.4 million at December 31, 2022 and 2021, 2022, respectively.

(c) Export sales relate mostly to PE Films. Operations in Brazil relate to Flexible Packaging Films.

(d) Corporate depreciation and amortization are included in Corporate corporate expenses, net, on the EBITDA from ongoing operations table above.

14. SAVINGS PLAN

Tredegar has a savings plan that allows eligible employees to voluntarily contribute a percentage of their compensation, up to IRS limitations. Charges recognized for the savings plan were $4.0 million in 2023, $3.9 million in 2022 and $3.3 million in 2021. The provisions of the savings plan provided the following benefits for salaried and certain hourly employees:

- The Company makes matching contributions to the savings plan of $1 for every $1 an employee contributes per pay period up to a maximum of 5% of eligible compensation.
- The savings plan includes immediate vesting of matching contributions and automatic enrollment at 3% of eligible compensation unless the employee opts out or elects a different percentage.

The Company also has a non-qualified plan that restores matching benefits for employees suspended from the savings plan due to certain limitations imposed by income tax regulations ("restoration plan"). Charges recognized for these plans were $3.9 million in 2022, $3.3 million in 2021 and $4.0 million in 2020. The Company's liability under the restoration plan was $0.7 million $0.4 million at December 31, 2022 December 31, 2023 (consisting of 70,266 79,124 phantom shares of common stock) and $0.7 million at December 31, 2021 December 31, 2022 (consisting of 56,570 70,266 phantom shares of common stock) and valued at the closing market price on those dates. Charges recognized for the restoration plan were immaterial for the years 2023, 2022 and 2021.

The Tredegar Corporation Benefits Plan Trust (the "Trust") purchased 7,200 shares of the Company's common stock in 1998 for $0.2 million and 46,671 shares of its common stock in 1997 for $1.0 million. There have been no shares purchased since 1998 except for re-invested dividends. The cost of the shares held by the Trust is shown as a reduction to shareholders' equity in the consolidated balance sheets.

15. DIVESTITURES AND ASSETS HELD FOR SALE

Divestitures

Personal Care Films

In 2020, the Company completed the sale of Personal Care Films for an aggregate purchase price of $60.5 million, subject to customary adjustments. The Company agreed to provide certain transition services related to finance, human resources and information technology ("IT") that ended during the second quarter of 2021, resulting in final cash proceeds of $64.1 million. Personal Care Films was previously reported in the PE Films segment.

The following table summarizes the financial results of discontinued operations reflected in the Consolidated Statements of Income for the year ended December 31 2020. Net income (loss) from discontinued operations for the years ended December 31, 2022 and 2021 were immaterial.

(In thousands)		Year Ended December 31, 2020
Revenues and other items:		
Sales	$	110,246
Other income (expense), net		(333)
		109,913
Costs and expenses:		
Cost of goods sold		92,079
Freight		5,229
Selling, general and administrative		16,824
Research and development		8,863
Asset impairments and costs associated with exit and disposal activities, net of adjustments		1,529
Loss on sale of business		50,027
Total		174,551
Income (loss) from discontinued operations before income taxes		(64,638)
Income tax expense (benefit)		(6,027)
Income (loss) from discontinued operations, net of tax	$	(58,611)

The following table provides significant operating and investing cash flow information for discontinued operations for the year ended December 31, 2020. There was no significant operating and investing cash flow information for the years ended December 31, 2022 and 2021.

(In thousands)		Year Ended December 31, 2020
Operating activities:		
Depreciation and amortization	$	5,511
Loss on sale of Personal Care Films		50,027
Total		55,538
Investing activities:		
Net proceeds on sale of Personal Care Films	$	55,115
Capital expenditures		(1,912)
Total	$	53,203

Assets Held For Sale

In July 2019, the Company committed to a plan to close its manufacturing facility in Lake Zurich, Illinois, which historically was reported within the personal care component of its PE Films segment. As of December 31, 2020, the disposal group carrying value of $4.6 million was reported in "Prepaid expenses and other" in the consolidated balance sheet as the held for sale criteria was met. During the third quarter of 2021, the Company completed the sale of the remaining assets in Lake Zurich, Illinois resulting in total cash proceeds of $4.7 million.

16. INVESTMENTS

In August 2007 and December 2008, the Company made an aggregate investment of $7.5 million in kaleo, Inc. ("kaléo"), a privately held specialty pharmaceutical company dedicated to building innovative solutions for serious and life-threatening medical conditions. Tredegar historically accounted for its investment in kaléo under the fair value option. At the time of the initial investment, the Company elected the fair value option of accounting since its investment objectives were similar to those of venture capitalists, which typically do not have controlling financial interests. kaléo's stock is not publicly traded.

On December 27, 2021, the Company completed the sale of its investment interests in kaléo (Series A-3 Preferred Stock, Series B Preferred Stock and common stock) that, taken together, represented on a fully-diluted basis an approximate 18% interest in kaléo. Tredegar received closing cash proceeds of $47.1 million. Subsequently, in May 2022, additional cash consideration of $1.4 million was received related to customary post-closing adjustments, which is reported in "Other income (expense), net" in the consolidated statements of income.

17. SUPPLY CHAIN FINANCING

The Company has supply chain finance service agreements with third-party financial institutions to provide platforms that facilitate the ability of participating suppliers to finance payment obligations from the Company with the third-party financial institution. The Company's obligations to its suppliers, including amounts due and scheduled payment dates, are not affected by suppliers' decisions to finance amounts under the supply chain finance agreements. As of December 31, 2022 December 31, 2023 and 2021, $25.9 2022, $15.8 million and $30.7 $25.9 million, respectively, of the Company's accounts payable were financed by participating suppliers through third-party financial institutions.

A reconciliation of the beginning and ending balances of the supply chain financing for the year ended December 31, 2023 is as follows:

18.

(In thousands)		2023
Balance, beginning of year	$	25,927
New obligations entered		79,630
Less payments made		(90,365)
Foreign exchange		588
Balance, end of year	$	15,780

16. CONTINGENCIES

Tredegar is involved in various stages of investigation and remediation relating to environmental matters at certain current and former plant locations. Where the Company has determined the nature and scope of any required environmental remediation activity, estimates of cleanup costs have been obtained and accrued. As efforts to maintain compliance with applicable environmental laws and regulations, additional contingencies may be identified continue. If additional contingencies are identified in the future, the Company's practice is to determine at that time the nature and scope of those contingencies, obtain and accrue estimates of the cost of remediation, and perform remediation. While the Company believes it is currently adequately accrued for known environmental issues, it is possible that unexpected future costs for known or unknown environmental issues could have a material adverse effect on its financial condition, results of operations and cash flows at that time.

The Company is involved in various other legal actions arising in the normal course of business. After taking into consideration the relevant information, the Company believes that it has sufficiently accrued for probable losses and that the actions will not have a material adverse effect on its financial position.

From time to time, the Company enters into transactions with third parties in connection with the sale of assets or businesses in which it agrees to indemnify the buyers or third parties involved in the transaction, or in which the sellers or third parties involved in the transaction agree to indemnify Tredegar, for certain liabilities or risks related to the assets or business. Also, in the ordinary course of its business, the Company may enter into agreements with third parties for the sale of goods or services that may contain indemnification provisions. In the event that an indemnification claim is asserted, liability for indemnification would be subject to an assessment of the underlying facts and circumstances under the terms of the applicable agreement. For these reasons, Tredegar is unable to estimate the maximum amount of the potential future liability under the indemnity provisions of these agreements. The Company does, however, accrue for losses for any known contingent liability, including those that may arise from indemnification provisions, when future payment is probable and the amount is reasonably estimable. The Company discloses contingent liabilities if the probability of loss is reasonably possible and considered to be material.

Item 16. FORM 10-K SUMMARY

Not Applicable.

EXHIBIT INDEX

2.1	Purchase and Sale Agreement, dated as of September 1, 2023, by and among Packfilm US LLC, Film Trading Importacao e Representacao Ltda., Terphane LLC, Terphane Limitada, Tredegar Film Products (Latin America), Inc., Terphane Acquisition Corporation II, TAC Holdings, LLC, Tredegar Investments LLC, Tredegar Corporation

		Corporation and Oben Holding Group S.A.C. (filed as Exhibit 2.1 of Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on September 5, 2023, and incorporated herein by reference).
3.1	Amended and Restated Articles of Incorporation of Tredegar (filed as Exhibit 3.1 to Tredegar's Annual Report on Form 10-K (File No. 1-10258) for the year ended December 31, 2004, and incorporated herein by reference)	
3.1.1	Articles of Amendment to Amended and Restated Articles of Incorporation of Tredegar (filed as Exhibit 3.3 to Tredegar's Annual Report on Form 10-K (File No. 1-10258) for the year ended December 31, 2004, and incorporated herein by reference)	
3.1.2	Articles of Amendment to Amended and Restated Articles of Incorporation of Tredegar, as of May 24, 2013 (filed as Exhibit 3.1 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on May 29, 2013 and incorporated herein by reference)	
3.1.3	Articles of Amendment to Amended and Restated Articles of Incorporation of Tredegar, as of May 4, 2016 (filed as Exhibit 3.1 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on May 6, 2016, and incorporated herein by reference)	
3.2	Amended and Restated Bylaws of Tredegar (filed as Exhibit 3.1 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on March 30, 2020August 7, 2023, and incorporated herein by reference)	
3.3	Amended and Restated Bylaws of Tredegar Corporation, as of August 4, 2023 (filed as Exhibit 3.1 of Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on August 7, 2023, and incorporated herein by reference).	
4.1	Description of Registered Securities (filed as Exhibit 4.1 to Tredegar's Annual Report on Form 10-K (File No 1-10258) for the year ended December 31, 2019, and incorporated herein by reference)	
10.1	Second Amended and Restated Credit Agreement, dated as of June 29, 2022, among Tredegar, as borrower, the lenders named therein, JPMorgan Chase Bank N.A., as administrative agent, Citizens Bank N.A and PNC Bank, National Association, as co-syndication agents, and Bank of America, N.A., U.S. Bank National Association and Wells Fargo Bank, National Association, as co-documentation agents, and the other lenders party thereto (filed as Exhibit 4.1 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on June 30, 2022, and incorporated herein by reference)	
10.1.1	Second Amended and Restated Guaranty, dated as of June 29, 2022, by and among the subsidiaries of Tredegar listed on the signature pages thereto in favor of JPMorgan Chase Chase Bank, N.A., as administrative agent, for the ratable benefit of the Holders of Guaranteed Obligations (as defined therein) (filed as Exhibit 4.2 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on June 30, 2022, and incorporated herein by reference)	
10.1.2	Second Amended and Restated Pledge Agreement, dated as of June 29, 2022, by and among Tredegar and the subsidiaries of Tredegar listed on the signature pages thereto and JPMorgan Chase Chase Bank, N.A., as administrative agent, for the ratable benefit of the Secured Parties (as defined therein) (filed as Exhibit 4.3 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on June 30, 2022, and incorporated herein by reference)	
10.1.3	Amendment No. 1 to Second Amended and Restated Credit Agreement, dated as of November 29, 2022, among Tredegar Corporation, as borrower, the lenders named therein, JPMorgan Chase Bank, N.A., as administrative agent, Citizens Bank, N.A. and PNC Bank, National Association, as co-syndication agents, and Bank of America, N.A., U.S. Bank National Association and Wells Fargo Bank, National Association, as co-documentation agents, and the other lenders party thereto (filed as Exhibit 10.1 of Tredegar's Second Quarter 2023 Form 10-Q (File No. 1-10258), filed on August 9, 2023, and incorporated herein by reference).	
10.1.4	Amendment No. 2 to Second Amended and Restated Credit Agreement, dated as of August 3, 2023, among Tredegar Corporation, as borrower, the lenders named therein, JPMorgan Chase Bank, N.A., as administrative agent, Citizens Bank, N.A. and PNC Bank, National Association, as co-syndication agents, and Bank of America, N.A., U.S. Bank National Association and Wells Fargo Bank, National Association, as co-documentation agents, and the other lenders party thereto (filed as Exhibit 10.2 of Tredegar's Second Quarter 2023 Form 10-Q (File No. 1-10258), filed on August 9, 2023, and incorporated herein by reference).	
10.1.5	Amendment No. 3, dated December 27, 2023, to the Second Amended and Restated Credit Agreement, dated June 29, 2022, by and among Tredegar Corporation, as borrower, certain of Tredegar Corporation's material domestic subsidiaries, as guarantors, the lenders named therein, JPMorgan Chase Bank, N.A., as administrative agent, Citizens Bank, N.A. and PNC Bank, National Association, as co-syndication agents, and Bank of America, N.A., U.S. Bank National Association and Wells Fargo Bank, National Association, as co-documentation agents (filed as Exhibit 4.1 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on December 28, 2023, and incorporated herein by reference).	
10.1.6	Third Amended and Restated Pledge and Security Agreement, dated as of December 27, 2023, by and among Tredegar Corporation and the subsidiaries of Tredegar Corporation listed on the signature pages thereto and JPMorgan Chase Bank, N.A., as administrative agent	

the subsidiaries of Tredegar Corporation listed on the signature pages thereto and JPMorgan Chase Bank, N.A., as administrative agent, for the ratable benefit of the Secured Parties (as defined therein)(filed as Exhibit 4.1 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on December 28, 2023, and incorporated herein by reference).

10.2	Reorganization and Distribution Agreement, dated as of June 1, 1989, between Tredegar and Ethyl Corporation (filed as Exhibit 10.1 to Tredegar's Annual Report on Form 10-K (File No. 1-10258) for the year ended December 31, 2004, and incorporated herein by reference)
*10.3	Employee Benefits Agreement, dated as of June 1, 1989, between Tredegar and Ethyl Corporation (filed as Exhibit 10.2 to Tredegar's Annual Report on Form 10-K (File No. 1-10258) for the year ended December 31, 2004, and incorporated herein by reference)
10.4	Tax Sharing Agreement, dated as of June 1, 1989, between Tredegar and Ethyl Corporation (filed as Exhibit 10.3 to Tredegar's Annual Report on Form 10-K (File No. 1-10258) for the year ended December 31, 2004, and incorporated herein by reference)
10.5	Indemnification Agreement, dated as of June 1, 1989, between Tredegar and Ethyl Corporation (filed as Exhibit 10.4 to Tredegar's Annual Report on Form 10-K (File No. 1-10258) for the year ended December 31, 2004, and incorporated herein by reference)
*10.6	Tredegar Industries, Inc. Retirement Benefit Restoration Plan (filed as Exhibit 10.7 to Tredegar's Annual Report on Form 10-K (File No. 1-10258) for the year ended December 31, 2004, and incorporated herein by reference)
*10.6.1	Amendment to the Tredegar Industries, Inc. Retirement Benefit Restoration Plan (filed as Exhibit 10.7.1 to Tredegar's Annual Report on Form 10-K (File No. 1-10258) for the year ended December 31, 2004, and incorporated herein by reference)
*10.7	Tredegar Industries, Inc. Savings Plan Benefit Restoration Plan (filed as Exhibit 10.6 to Tredegar's Annual Report on Form 10-K (File No. 1-10258) for the year ended December 31, 2013, and incorporated herein by reference)
*10.7.1	Resolutions of the Executive Committee of the Board of Directors of Tredegar adopted on December 28, 2004 (effective as of December 31, 2004) amending the Tredegar Corporation Retirement Savings Plan Benefit Restoration Plan (filed as Exhibit 10.9.1 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on December 30, 2004, and incorporated herein by reference)
*10.8	Tredegar 2004 Equity Incentive Plan as Amended and Restated Effective March 27, 2009 (filed as Annex 1 to Tredegar's Definitive Proxy Statement on Schedule 14A (File No. 1-10258) filed on April 14, 2009 and incorporated herein by reference)
*10.9	Form of Notice of Nonstatutory Stock Option Grant and Nonstatutory Stock Option Terms and Conditions (filed as Exhibit 10.3 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on February 27, 2013, and incorporated herein by reference)
*10.10	Form of Notice of Stock Unit Award and Stock Unit Award Terms and Conditions (filed as Exhibit 10.1 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on March 1, 2016, and incorporated herein by reference)
*10.11	Form of Notice of Stock Award and Stock Award Terms and Conditions (filed as Exhibit 10.2 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on March 1, 2016, and incorporated herein by reference)
*10.12	Form of Notice of Stock Award and Stock Award Terms and Conditions (filed as Exhibit 10.18 to Tredegar's Quarterly Report on Form 10-Q (File No. 1-10258) for the quarterly period ended March 31, 2020, and incorporated herein by reference)
*10.13	Form of Notice of Stock Appreciation Right Grant and Stock Appreciation Right Terms and Conditions (filed as Exhibit 10.19 to Tredegar's Quarterly Report on Form 10-Q (File No. 1-10258) for the quarterly period ended March 31, 2020, and incorporated herein by reference)
*10.14	Form of Notice of Nonstatutory Stock Option Grant and Nonstatutory Stock Option Terms and Conditions (filed as Exhibit 10.20 to Tredegar's Quarterly Report on Form 10-Q (File No. 1-10258) for the quarterly period ended March 31, 2020, and incorporated herein by reference)
*10.15	Tredegar 2018 Equity Incentive Plan, as amended and restated (filed as Annex A to Tredegar's Definitive Proxy Statement on Schedule 14A (File No. 1-10258) filed on March 25, 2021, and incorporated herein by reference)
*10.16	Form of Notice of Nonstatutory Stock Option Grant and Nonstatutory Stock Option Terms and Conditions (filed as Exhibit 10.1 to Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on May 7, 2018, and incorporated herein by reference)
*10.17	Form of Notice of Nonstatutory Stock Option Grant and Nonstatutory Stock Option Terms and Conditions (filed as Exhibit 10.3 to Tredegar Corporation's Registration Statement on Form S-8 (Registration No. 333-230386), filed on March 19, 2019, and incorporated herein by reference)
*10.18	Form of Executive Change-in-Control Severance Agreement (filed as Exhibit 10.1 of Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on October 4, 2023, and incorporated herein by reference).
10.19	Standard Buyout Commitment Agreement, dated October 31, 2023, by and between Tredegar Corporation and Massachusetts Mutual Life Insurance Company (filed as Exhibit 10.1 of Tredegar's Current Report on Form 8-K (File No. 1-10258), filed on November 6, 2023, and incorporated herein by reference).
+21	Subsidiaries of Tredegar
+23	Consent of KPMG LLP, Independent Registered Public Accounting Firm
+31.1	Certification of President and Chief Executive Officer (Principal Executive Officer) of Tredegar, pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

+31.2	Certification of Vice President and Chief Financial Officer (Principal Financial Officer) of Tredegar, pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
+32.1	Certification of President and Chief Executive Officer (Principal Executive Officer) of Tredegar, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
+32.2	Certification of Vice President and Chief Financial Officer (Principal Financial Officer) of Tredegar, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
+97	Executive Incentive-based Compensation Recoupment Policy
+101	XBRL Instance Document and Related Items
+104	Cover Page Interactive Data File (formatted in iXBRL and contained in Exhibit 101)

* Denotes compensatory plans or arrangements or management contracts.

\+ Filed herewith

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TREDEGAR CORPORATION
(Registrant)

Dated: March 16, 2023 15, 2024

By /s/ John M. Steitz
John M. Steitz
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on March 16, 2023 March 15, 2024.

Signature	Title
/s/ John M. Steitz (John M. Steitz)	President, Chief Executive Officer and Director (Principal Executive Officer)
/s/ D. Andrew Edwards (D. Andrew Edwards)	Executive Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ Frasier W. Brickhouse, II (Frasier W. Brickhouse, II)	Corporate Treasurer and Controller (Principal Accounting Officer)
/s/ Gregory A. Pratt (Gregory A. Pratt)	Chairman of the Board of Directors
/s/ George C. Freeman, III (George C. Freeman, III)	Director
/s/ Kenneth R. Newsome (Kenneth R. Newsome)	Director
/s/ Thomas G. Snead, Jr. (Thomas G. Snead, Jr.)	Director
/s/ Carl E. Tack, III (Carl E. Tack, III)	Director
/s/ Anne G. Waleski (Anne G. Waleski)	Director

Exhibit 21

Tredegar Corporation

Entity	State of Incorporation
Tredegar Corporation	Virginia
Bon L Aluminum LLC	Virginia
Bon L Campo Limited Partnership	Texas
Bon L Holdings LLC	Virginia
Bonnell Aluminum (Clearfield), Inc.	Delaware
Bonnell Aluminum (Corporate), Inc.	Virginia
Bonnell Aluminum (Elkhart), Inc.	Virginia
Bonnell Aluminum, Inc.	Virginia
Bonnell Aluminum (Niles), LLC	Virginia
El Campo GP, LLC	Virginia
Guangzhou Tredegar Film Products Company Limited	China
Idlewood Properties, Inc.	Virginia
TAC Holdings LLC	Virginia
Terphane Acquisition Corp. II	Cayman Islands
Terphane Holdings LLC	Delaware
Terphane LLC	Delaware
Terphane Limitada	Brazil
Tredegar Far East Corporation	Virginia
Tredegar Film Products (Europe), Inc.	Virginia
Tredegar Film Products (Korea), Inc.	Republic of Korea
Tredegar Film Products (Latin America), Inc.	Virginia
Tredegar Films Development, Inc.	Virginia
Tredegar Investments, LLC	Virginia
Tredegar Investments II, LLC	Virginia
Tredegar Performance Films Inc.	Virginia
Tredegar Surface Protection, LLC	Virginia

Exhibit 23

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (No. 333-120132, No. 333-115423, No. 333-66562, No. 033-64647, No. 333-257153, and No. 333-230386) on Form S-8 of our reports dated March 16, 2023 March 15, 2024, with respect to the consolidated financial statements of Tredegar Corporation and the effectiveness of internal control over financial reporting.

/s/ KPMG LLP

Richmond, Virginia
March 16, 2023 15, 2024

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EXHIBIT 31.1

Section 302 Certification

I, John M. Steitz, certify that:

(1) I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2022 December 31, 2023, of Tredegar Corporation;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

(4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting;

(5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2023 March 15, 2024

/s/ John M. Steitz

John M. Steitz
President and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

Section 302 Certification

I, D. Andrew Edwards, certify that:

(1) I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2022 December 31, 2023, of Tredegar Corporation;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

(4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting;

(5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2023 March 15, 2024

/s/ D. Andrew Edwards

D. Andrew Edwards
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Tredegar Corporation (the "Company") for the year ended December 31, 2022 December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John M. Steitz, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ John M. Steitz

John M. Steitz
President and Chief Executive Officer
(Principal Executive Officer)
March 16, 2023 15, 2024

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EXHIBIT 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Tredegar Corporation (the “Company”) for the year ended December 31, 2022 December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, D. Andrew Edwards, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ D. Andrew Edwards

D. Andrew Edwards
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)
March 16, 2023 15, 2024

Exhibit 97

EXECUTIVE INCENTIVE-BASED COMPENSATION RECOUPMENT POLICY

The Board of Directors of Tredegar Corporation (the “Company”), based on the recommendation of the Executive Compensation Committee of the Board of Directors (the “Committee”), approved and adopted this Executive Incentive-Based Compensation Recoupment Policy (this “Policy”), effective as of August 2, 2012, and as amended effective as of October 2, 2023 (the “Effective Date”). This Policy incorporates by reference the requirements of Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (regarding recovery of erroneously awarded compensation) and its implementing rules and regulations thereunder, including Section 10D of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the New York Stock Exchange (“NYSE”) listing standards (the “Clawback Rules”).

The purposes of this Policy are to (i) prevent the unjust enrichment of Covered Employees (as defined below) by permitting the Company to recover Incentive Awards (as defined below) that were received as a result of financial results that were later determined to be incorrect and (ii) mitigate the risk of manipulation of data used to determine the payment, issuance or vesting of Incentive Awards.

The Board of Directors and the Committee are hereby authorized to take any actions, including those set forth in this Policy, to further the purposes of this Policy and to comply with the Clawback Rules.

Covered Employees

This Policy will apply to all incentive-based compensation, as described below (“Incentive Awards”), received on or after the Effective Date to current or former executive officers (“Covered Employees”). The term “executive officers” means the Company’s officers for purposes of Section 16 under the Exchange Act.

Covered Compensation

The term “incentive-based compensation” means any compensation that is granted, earned or vested based wholly or in part on the attainment of a financial reporting measure. The term “financial reporting measure” is (i) any measure that is determined and presented in accordance with U.S. generally accepted accounting principles used in preparing the Company’s financial statements, and any measure that is derived in whole or in part from such measure (e.g., revenue, net income, return on assets, etc.), (ii) stock price and/or (iii) total shareholder return (“TSR”). A financial reporting measure need not be presented within the Company’s financial statements or included in a filing with the Securities Exchange Commission.

For the avoidance of doubt, Incentive Awards shall not include any salaries, discretionary bonuses, non-equity incentive plan awards earned upon satisfying a strategic measure or operational measure (e.g., completion of a project), or equity-based awards that are not contingent on achieving any financial reporting measure.

An Incentive Award is deemed “received” in the Company’s fiscal period during which the financial reporting measure specified in the Incentive Award is attained, even if the payment or grant of the Incentive Award occurs after the end of that period.

Each annual incentive plan or agreement documenting an Incentive Award that is granted to a Covered Employee on or after the Effective Date will include a provision requiring (i) that the Covered Employee acknowledge and accept the terms and conditions of this Policy and (ii) that the Covered Employee’s eligibility to receive such Incentive Award is contingent upon such acknowledgement and acceptance, as in effect on the date that the annual incentive plan is adopted or applicable Incentive Award is granted.

Required Clawback; Accounting Restatement

In the event that the Company is required to prepare an accounting restatement of its consolidated financial statements due to the material noncompliance by the Company with any financial reporting requirement under the U.S. federal securities laws, including any required accounting restatement to correct an error in previously issued

financial statements that is material to the previously issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period ("Financial Restatement Trigger"), the Board of Directors or the Committee will determine whether any Erroneously Awarded Compensation (as defined below) must be clawed back pursuant to this Policy.

Solely with respect to Incentive Awards that are subject to recovery due to a Financial Restatement Trigger, the Board of Directors or the Committee will consider the accountability of any Covered Employee whose acts or omissions were responsible in whole or in part for the events that led to the restatement and whether such acts or omissions constituted fraud or misconduct. In the event that the Board of Directors or the Committee determines that a Covered Employee's acts or omissions constituted fraud or misconduct, the Board of Directors or the Committee, in addition to the recovery of Incentive Awards, as provided above, may (but shall not be obligated to) (i) take (in the case of the Board of Directors), or recommend to the Board of Directors (in the case of the Committee), disciplinary action, including termination, and (ii) pursue other available remedies, including legal action.

Clawback Amount

The amount required to be recouped due to a Financial Restatement Trigger will be the amount received by a Covered Employee in excess of the amount that would have been paid to the Covered Employee absent the restatement, calculated on a pre-tax basis ("Erroneously Awarded Compensation"). If the amount of Erroneously Awarded Compensation cannot be determined directly from the information in the accounting restatement, then the Board of Directors or Committee shall make its determination based on a reasonable estimate of the effect of the accounting restatement and will maintain and provide documentation of the estimate to the NYSE.

In addition, following a restatement of the Company's consolidated financial statements, the Board of Directors or the Committee shall cause the Company to recover any compensation received by the Chief Executive Officer and Chief Financial Officer that is required to be recovered by Section 304 of the Sarbanes-Oxley Act of 2002.

The Company will not indemnify any Covered Employee against the loss of any Erroneously Awarded Compensation.

Clawback Methodology

In the event that the Board of Directors or the Committee determines that a Covered Employee received Erroneously Awarded Compensation, the Company will reasonably promptly recover from such Covered Employee the Erroneously Awarded Compensation, except to the extent the Committee or a majority of independent directors has determined that recovery would be impracticable solely for the following reasons, and subject to the following procedural and disclosure requirements:

a. The direct expense paid to a third party to assist in enforcing this Policy would exceed the amount to be recovered. Before concluding that it would be impracticable to recover any amount of Erroneously Awarded Compensation based on expense of enforcement, the Committee must make a reasonable attempt to recover such erroneously awarded compensation, document such reasonable attempt(s) to recover and provide that documentation to NYSE;

a. Recovery would violate home country law where that law was adopted prior to November 28, 2022. Before concluding that it would be impracticable to recover any amount of Erroneously Awarded Incentive Compensation based on violation of home country law, the Committee must satisfy the applicable opinion and disclosure requirements of the Clawback Rules; or

a. Recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder.

The Board of Directors or the Committee may, in its sole discretion, recover Incentive Awards in any manner (or combination thereof) permitted by law, including by (i) requiring repayment or return of prior Incentive Awards made to such Covered Employee, including Incentive Awards that were not affected by the accounting restatement, (ii) cancelling unvested Incentive Awards, (iii) offsetting the amount to be recovered from any compensation owed by the Company to the Covered Employee or (iv) adjusting the future compensation of such Covered Employee. All actions taken by the Company to recover Incentive Awards will be taken in accordance with applicable law and consistent with the provisions of Section 409A of the Internal Revenue Code of 1986, as amended, and the rules and regulations promulgated thereunder. In addition, the Company may enter into deferred payment plans with a Covered Employee to effectuate recoupment to avoid unreasonable economic hardship.

The Company's right to recover Incentive Awards based on a Financial Restatement Trigger will be limited to Incentive Awards received during the three fiscal years immediately preceding the earlier of the date the Board of Directors, a committee of the Board of Directors, or the officer or officers of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that an accounting restatement is required, or (y) the date a court, regulator or other legally authorized body directs the Company to prepare an accounting restatement.

Notwithstanding the foregoing, in the event of a clawback pursuant to this Policy, the Company may seek reimbursement from a Covered Employee for the costs (including legal fees) incurred in connection with the recovery of the Erroneously Awarded Compensation.

In the event any recoupment of Erroneously Awarded Compensation is triggered pursuant to this Policy, the Company shall provide each affected Covered Employee with any documentation reasonably requested by such Covered Employee to allow him or her to provide evidence of the recoupment with his or her tax returns for the year of recoupment.

Administrative Authority.

The Committee shall have full and final authority to make all determinations under this Policy, including whether the Policy applies and the amount to be recovered from the Covered Employee. The Committee shall have full and final authority, in its sole discretion, to: (a) construe all terms, provisions, conditions, and limitations of this Policy, (b) correct any defect or to supply any omission or to reconcile any inconsistency that may appear in this Policy in such manner and to such extent as the Committee shall deem appropriate and (c) make all other determinations or take any actions necessary or advisable for the administration of this Policy. All determinations and decisions made by the Committee pursuant to the provisions of this Policy shall be final, conclusive and binding on all persons, including the Company, its subsidiaries, its shareholders and Covered Employees. The determination of the Committee or the Board of Directors need not be uniform with respect to one or more Covered Employees.

Any members of the Committee, and any other members of the Board of Directors who assist in the administration of this Policy, shall not be personally liable for any action, determination or interpretation made with respect to this Policy and shall be fully indemnified by the Company to the fullest extent under applicable law and Company policy with respect to any such action, determination or interpretation. The foregoing sentence shall not limit any other rights to indemnification of the members of the Board of Directors under applicable law or Company policy.

The Board of Directors or the Committee may amend this Policy from time to time in its discretion and will amend this Policy as it deems necessary to comply with Section 10D of the Exchange Act, and to comply with the applicable rules or standards of the NYSE.

DISCLAIMER

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